Modern

r this issue

N.A.P.L. Meeting
A Day at the Races
Modern Sayers Plant
Report On IPEX
Craftsmen Convention
Carnegie Offset Clinic

August, 1955



Senelith Inks

were the first lithographic inks

made from dyestuffs

treated with sodium tungstate

for better sunfastness

and are still leading

with their outstanding resistance properties

Our booklet "Inks, Lithographic and Printing" may be obtained on request

The Senefelder Company, Inc.

"Everything for Lithography"

32-34 Greene Street

New York 13, N. Y.

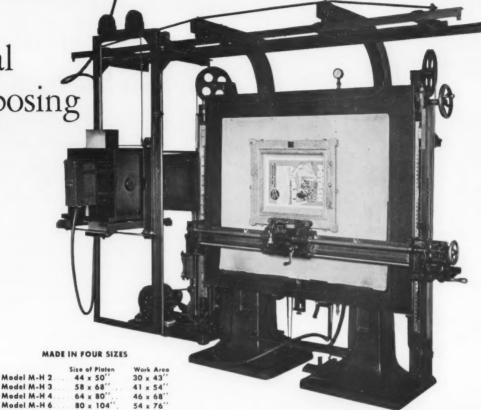
SEI

ROBERTS & PORTER

M-H Vertical Photo-Composing Machine

... With high-speed non-embossing negative holder and M-H Universal register device.

The simplest, fastest, most accurate photo-composing machine ever made.



ANSTON MONOTYPE

The M-H Vertical Photo-Composing Machine has been especially designed for PRECISION in registering negatives for single- and multiple-color process work. Accuracy in positioning images on the plate is assured by rigid construction and micrometer adjustment. Convenient operation and easy handling and positioning of negative holders speed up production of both single exposures and finished plate. Simplicity in design, highly skilled workmanship in building the machine, and the finest of fully tested materials contribute to ease of operation, long life and freedom from maladjustment.

The M-H Photo-Composing Machine will make plates of higher quality in less time than any other photocomposing machine. The coupon below, addressed to Roberts & Porter, national distributors of all photomechanical and plate-making equipment manufactured by Lanston Monotype, will bring you the latest prices and information on newest designs and advances in equipment for lithography, gravure, photo-engraving and related graphic arts industries.

Demonstrations arranged on request. Mail coupon today!

eneral Offices: 555 West Adams St., CHICAGO

SEND COUPON

NEW YORK

622-626 Green wich

BOSTON 88 Broad St.

ues

DETROIT

1025 Brush St.

BALTIMORE

5 South Gay St.

CINCINNATI

229 E. 6th St. KANSAS CITY

1434 Wyandotte St.

LOS ANGELES
344 N. Vermont Ave.

CLEVELAND

... for prices and descriptive

literature

SAN FRANCISCO 1185 Howard St.

PHILADELPHIA

Roberts & Porter, Inc. 622-626 Greenwich St. New York, N.Y.

Please send prices and literature on Lanston Monotype equipment

NAME

COMPANY

ADDRESS_____

CITY

"What does the Fotosetter do better?"

"For one thing, it makes far better negatives possible."



st st

Inksqueeze does this (both illustrations enlarged from 12 pt.)

Fotosetter composition looks like this, always sharp and uniform **REQUIREMENT.** Reproduction of type from a plate is no better than the negative from which the plate is made. A superior negative can only be obtained from a sharp image.

PROBLEM. You can't get such an image from a reproduction proof! Even with the best equipment and highest skill you cannot escape ragged edges due to inksqueeze, impression marks or variations in density within a form, or from page to page.

SOLUTION. Set type photographically, on a Fotosetter line composing machine. Sharp letter outlines, uniformity of weight, and true fidelity are inherent.

BONUS. In addition to eliminating repro proof problems, the Fotosetter also saves many time consuming and often exasperating hours of camera work.

PROOF. As one lithographer put it, "Fotosetter composition gives us perfect negatives. We'll never go back."

Intertype Corporation

350 Furman Street, Brooklyn 1: New York

Chicago, San Francisco, Los Angeles, New Orleans, Boston & In Canada: Teronto Type Foundry Co. Ltd. forento, Montreal, Winnipea, Vancouver, He

Fotosetter is a registered trademark . Fotosetter Bodoni Bold and Fature

Appearing in August 1955 printing trade journals. Printed by letterpress from engraver's plates made from Fotosetter composition on film. Printed in U.S.A.



If it isn't made by Intertype it isn't a FOTOSETTER.



COVER

99

rtype

It's as modern inside as out. Behind the ultra-modern exterior of Sayers Printing Co., shown in this night photo, is a completely equipped letterpress and litho shop tha: is a model for the industry. Story, page 36.

WAYNE E. DORLAND Publisher

HAMILTON C. CARSON EDWARD J. MEIER Associate Editors

> RALPH DORLAND Advertising Manager

CLIFFORD LINDEMAN Circulation Manager





Feature Articles

Vm. Cann Co.: A Day at the Races	32
Rustie" Promotes Cards for Rust Craft	34
Sayers Profits with Offset	36
Phone Books by Offset	39
Plus Factor in Work Simplification By George W. McSweeney	40
No Upsets with Offset: Carnegie Clinic	43
NAPL Announces Convention Program	45
New Equipment Featured at IPEX	46
Craftsmen Meet in Cincinnati	48
Paper for Offset: Part 5—Wet Strength Papers	49
Extras That Pay in Litho Sales	62
Departments	
Editorial	31
Metal Decorating Section	57
Technical Section: 3-Color Offset	61
Photographic Clinic	67
Thru the Glass	69
Technical Briefs	71
News About The Trade	75
Meeting Calendar	91
Litho Club News	95
Equipment, Supplies, Services	97
Classified Advertisements	115
Index to Advertisements	119
Tale Ends	120

MODERN LITHOGRAPHY

VOLUME 23, NUMBER 8

AUGUST, 1955

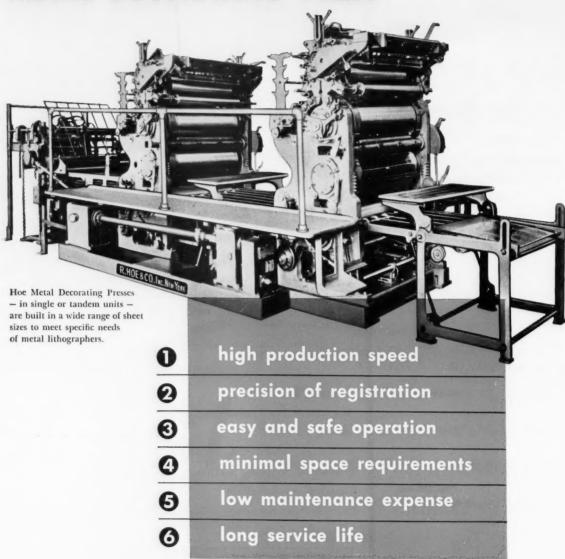
SUBSCRIPTION RATES: One year, \$3.00; two years, \$5.00. Canada and Pan America, one year, \$4.00; two years, \$7.00. Foreign, one year, \$9.00; two years, \$15.00. Group subscription (U. S. only) Four or more entered as a group, \$2.00 each. (May be sent to different addresses.)

Published monthly on the 5th by Industry Publications, Inc., 229 W. 28th St., New York, N. Y. Advertising, Subscription and Editorial Office, Box 31, Caldwell, N. J. Advertising rates made known on application. Closing date for copy—10th of the month preceding month of issue. Reentered as Second Class Matter May 12, 1953, at the Post Office at New York, N. Y., under the Act of March 3, 1879.

Address all correspondence to Box 31. Caldwell, N. J.

Here's what you secure with a HOE straight-line-feed

METAL DECORATING PRESS



A Hoe representative will be glad to explain the many special features in design and construction that make all these advantages possible. For full information address

R. HOE & CO, INC.

910 East 138th Street • New York 54, N. Y.
BRANCHES: BOSTON • CHICAGO • SAN FRANCISCO
BIRMINGHAM • PORTLAND, ORE.

NEKOOSA OFFSET has the surface you need

for fine color lithography



Look at the surface of an offset paper if you are looking for perfection in performance. We do. We look at the surface while Nekoosa Offset is being made—and we check again before Nekoosa Offset goes out—to make sure that all of your fine color lithography will reproduce in crisp, sparkling, life-like tones. Basis 50, 60, 70, 80 and 100. Other weights on special order. Ask your Nekoosa paper merchant to show you samples.

by the makers of

MADE IN U.S.A.

and opacity.



branch offices: new york city, 295 madison avenue

chicago, illinois, 4522 west 16th street

utica, michigan, 45834 van dyke avenue

resident representatives: washington, d. c., tulsa oklahoma and rochester, new york



A time for QUALITY

As brides wear gowns of Skinner satin, so important firms write letters on Strathmore paper. Their reasons are similar and absolutely valid: they both want quality when quality is traditional. It is also a tradition, and a good one, that the character of a company is implicit in its stationery. Thus the choice of Strathmore—surely superior by the most demanding standards—by innumerable prominent firms. It might well and wisely be your own choice. Have your supplier show you samples of your letterhead design on Strathmore papers.

William Skinner & Sons has manufactured fine fabrics for 107 years. Bridal satin has become synonymous with Skinner; and its many other fabrics are standards in their field. In its vast Holyoke Mills, Skinner research constantly pushes forward, designing increasingly better and more useful fabrics for tomorrow.

STRATHMORE LETTERHEAD PAPERS: Strathmore Parchment, Strathmore Script, Thistlemark Bond, Alexandra Brilliant, Bay Path Bond, Strathmore Writing, Strathmore Bond. Envelopes to match converted by the Old Colony Envelope Company, Westfield, Mass.

STRATHMORE THIN PAPERS: Strathmore Parchment Onion Skin, Strathmore Bond Onion Skin, Strathmore Bond Air Mail, Strathmore Bond Transmaster.

STRATHMORE

MAKERS OF FINE PAPERS

Strathmore Paper Company, West Springfield, Massachusetts

MODERN LITHOGRAPHY, August, 1955

Strathmore ADVERTISEMENTS

in national magazines tell your customers about the letterheads of famous American companies on Strathmore papers. This makes it easier for you to sell these papers, which you know will produce quality results.



This series appears in:



TAME



NEWSWEEK



BUSINESS WEEK



PRINTERS' INK



SALES MANAGEMENT



PURCHASING



ADVERTISING REQUIREMENTS

Jertuff coated cover does a superior job for

CATALOGS



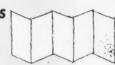
Supertuff is worthy of your products . . . and your sales story . . . reflects quality and retains fresh crisp appearance.

MENUS



Supertuff puts "best food forward" . . . wears like a moose sirloin.

FOLDERS



Supertuff shouts or soothes as you like . . . but always with well-mannered conviction.

SELF MAILERS

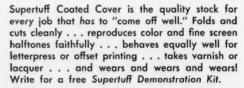


Supertuff gets attention . . . because obviously it deserves attention . . . your message looks important.

ANNUAL REPORTS



Supertuff gives 'em that solvent look
... in colors or black and white.





THE APPLETON COATED PAPER COMPANY

1204 North Meade Street APPLETON, WISCONSIN

THIS 2" LIFT DRILLED AND SLOTTED IN ONE OPERATION IN 2 SECONDS!

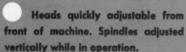
THE NEW MODEL - 5

multiple head DRILL

Can also be used for drilling round holes only. Easy to operate easy to set.

Drills last longer. Positive locking device holds drills absolutely sight. Cannot wobble.

Iron table in fixed position. Tiptoe treadle control brings the drills down to the work.



Chips automatically carried to removable waste box.

Fluorescent floodlight, shadowfree illumination for accurate setting of heads and gauges.

Back gauge screw operated . . rides in a V-slot . . . assures squareness . . . adjustable from front.

Open housing for unlimited back depth

Write today for complete specifications of the LAWSON MULTIPLE HEAD DRILL



LAWSON HOLLOW DRILLS

USE

unconditionally augranteed

Made of the finest grade tool steel electrically heat treated and oil tempered - will stay sharp longer. Highly polished mirror finish prevents chips jamming.

Lawson Hollow Drills also fit Wright, Tatum, Seybold and Rosback drilling machines.

P. Lawson Co

Main Office: 426 West 33rd St., N. Y.

BOSTON 170 Summer St.

628 So. Dearborn St.

Bourse Bldg.

EXCLUSIVE DISTRIBUTORS SALES AND SERVICE

HARRY W BRINTHALL CO. Los Angeles, San Francisco

A. E. HEINSOHN PRINTING MACHINERY Denver, Colorado

Toronto, Montreal, Winnipeg, Vancouver

SOUTHEASTERN PRINTERS SUPPLY CO.

Atlanta, Georgia

WESTERN NEWSPAPER UNION Tulsa, Little Rock, Okla City, Shreveport

E. C. PALMER & CO.

Dallas, Houston, New Orleans

Performance Records aid in selecting the right paper

YOU CAN plan any printing job better, if you know in advance that the PAPER will do its part.

Now, you can be sure! All you need to do is check your requirements against St. Regis Performance Records. They tell you the results that are attainable.

They are your assurance that you, too, can choose the paper that will give you efficient makeready time and impressions-per-hour.

Here are Performance Records on a job for which St. Regis Celluset offset was chosen. See for yourself how this paper performed . . .

CELLUSET CELLUSET

Record

of the use of St. Regis 70 lb. Celluset

(Name of printer on request)

THE JOB:

A self-mailer, 25 x 38 flat size

QUANTITY:

35,000 (20,000 sheets run)

FORMS:

42 x 58, 2 color Ham's offset

SHEET SIZE:

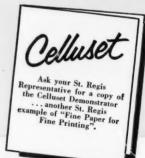
 38×50

Results Obtained

	Best Industry Standards	Celluset Offset Perform- ance
Make- ready time	2.70 hours	2.80 hours
Impressions	3,679 per hr.	3,800 per hr.

Workability Advantages

This two-color job required several of the special advantages found in St. Regis Celluset offset. High brightness, good color, enhanced deep tone values, gave maximum contrast. Special pulps used in St. Regis Celluset assure lateral stability for good pressroom performance and close register.



A WIDER RANGE OF GRADES FOR A WIDER RANGE OF JOBS

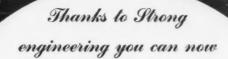
Enamel Printing Papers, Coated Printing Papers, Uncoated Printing Papers, Uncoated Book Papers



ST. REGIS PAPER COMPANY

Sales Subsidiary: St. Regis Sales Corporation

Printing, Publication and Converting Paper Division 230 Park Avenue, New York 17, N. Y. St. Regis Printing Papers are manufactured by St. Regis Paper Company, one of America's largest paper manufacturers, with resources ranging from raw material in its own forest preserves to modern mills and plants and nation-wide distribution.



cut plate-making exposure time in half!

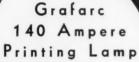
trong GRAFARC ARC LAMPS

UNIFORM COVERAGE OF LARGE AREAS. CONSTANT COLOR TEMPERATURES.

> POWER TO PUNCH THROUGH DENSE KODACHROMES. ACCURATE CONTROL OF DENSITIES, REGARDLESS OF LINE VOLTAGE VARIATIONS. SHARPER REPRODUCTION.

> > ELIMINATE ILLUMINATION VARIABLES. ELIMINATE DOT UNDERCUTTING.

Fully Automatic High Intensity



For use with vertical printing frames 40" x 50" and larger.

Challenger Camera Arc Lamp

Vertical trim; 75 amperes; 23 volt.

Grafarc 95 Ampere Printing Lamp

For use with vertical printing frames under 40" x 50"



Overhead model printing lamps available for use with horizontal printing frames. Burn in normal position, avoiding smoking of reflector and preventing ash from depositing on surfaces in the light path. Models for Monotype Huebner MH photo composing machines assure precise control of intensity for accurate repeats.

A SUBSIDIARY OF

THE STRONG ELECTRIC CORPORATION

Please send free literature on Strong Grafarc Lamps. 17 CITY PARK AVENUE

NAME FIRM CITY & STATE NAME OF SUPPLIER

GENERAL PRECISION EQUIPMENT CORPORATION

Produced in keeping with S&V's constant aim of supplying the finest in graphic arts' products, SINVALCO Chemicals offer lithographers the best in standardized, high-quality chemicals. Using a rigid system of quality control over raw materials and uniformity of finished product, S&V manufactures SINVALCO Chemicals from time-tested formulas to assure you of top efficiency and superior results.

Each ready-to-use SINVALCO Chemical is extremely effective for its particular application, saves valuable plate room time and improves the quality of your litho plates at a lower cost per plate.

Your nearest \$&V representative will be glad to furnish you with more detailed information about the chemicals listed below. Call him today.



SINVALCO Deep Etch Coating Solution

SINVALCO Deep Etch Developer

SINVALCO Asphaltum

SINVALCO Stabilized Albumin Solution

SINVALCO Plate Etches for Zinc & Aluminum

SINVALCO Fountain Etch for Zinc & Aluminum

SINVALCO Stabilized Gum Solution

SINVALCO Deep Etch Lacquer

SINVALCO Surface Plate Lacquer

SINVALCO Deep Etching Solution for Zinc

SINVALCO Deep Etching Solution for Aluminum

SINVALCO Developing Inks

SINVALCO Synthetic Surface Coating

SINVALCO Non-Toxic Fountain Solution

SINVALCO Chrome Etching Solution

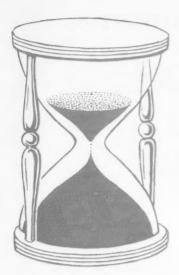
SINVALCO Copperizing Solution for Plates & Rollers

THE LITHO CHEMICAL DIVISION OF

Sinclair and Valentine

Main office & factory: 611 West 129th St., New York 27, N. Y.

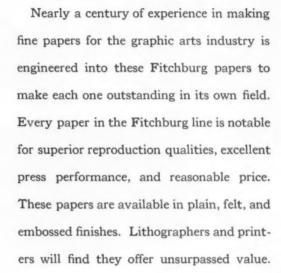
OVER 35 BRANCHES PROVIDE SERVICE FROM COAST TO COAST



NEARLY A CENTURY OF EXPERIENCE

in Making Fine Papers

Fitchburg Vellum
Fitch-Brite
Hillcourt Opaque Offset
Hillcourt Greeting
Hillcourt Papeteries
Fitchburg Parchment





Established in 1861

Write for complete information, sample sheets, and reference to local distributors

Fitchburg Paper Company

MILLS AND GENERAL OFFICES: FITCHBURG 6, MASS.

NEW YORK OFFICE: 250 PARK AVE., N.Y. 17

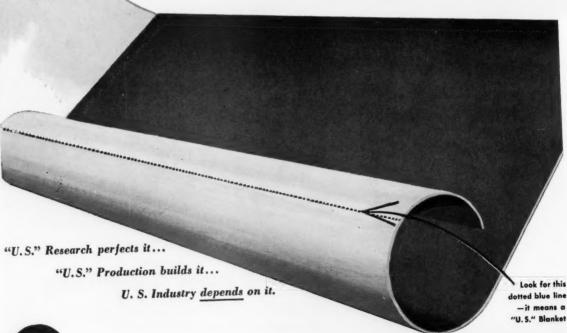
SO YOUR OFFSET BLANKETS **WEAR OUT TOO SOON?**

That's one reason why the switch is to "U. S." blankets. The qualities built into them assure long life and sharpness of impression.

- 1. Low stretch in "around cylinder" direction is the reason for sharpness of impression and maintenance of register.
 - 2. High strength withstands tension and pressure.
 - 3. Resistance to ink and wash-up materials prevents embossing or ply separation.
- 4. Outstanding resistance to smashing.
 - 5. Fast "comeback" after each impression, due to high resilience.
 - 6. Sharp printing reproduction stems from correct hardness.
 - 7. "Patching" or underpacking and make-up time minimized, due to uniform thickness.

United States Rubber Company's offset blankets are obtainable from any of our selected distributors. They are strategically located to give the lithography

trade prompt and efficient service. We will be happy to supply the name of the distributor nearest you. Write address below.





COMPANY RUBBER

MECHANICAL GOODS DIVISION . ROCKEFELLER CENTER, NEW YORK 20, N. Y.

Hose • Belting • Expansion Joints • Rubber-to-metal Products • Oil Field Specialties • Plastic Pipe and Fittings • Grinding Wheels • Packings • Tapes
Molded and Extruded Rubber and Plastic Products • Protective Linings and Coatings • Conductive Rubber • Adhesives • Roll Coverings • Mats and Matting

EVER READY LABELS GO PLACES AND DO THINGS



Trojan 3D

GUMMED PAPER

Complete Line of Gummed Printing Papers in Sheets and Rolls

LABEL PAPERS
STAMP PAPERS
LAMINATED FOILS
LAMINATED PAPERS
LAMINATED FABRICS
HEAT SEAL PAPERS
HEAT SEAL FOILS



They Say, Your new 3D gummed paper sheet works very satisfactorily in our Job Press Department. We have found it to be a smooth and economical running sheet on our Miehle and Miller presses. It takes the letterpress ink very well and gives us a superior looking product. We find that the sheet lies flat even on extremely humid days.

EVER READY LABEL CORPORATION Thomas M. Britt Plant Superintendent

You must try TROJAN 3D on your own presses in order to appreciate the truly revolutionary results you can obtain with it. Let us send you some sample sheets or, better yet, order in a small trial quantity for a test run. Write today.

The GUMMED PRODUCTS Company

... Specialists in the gumming of printing papers and sealing tapes

Main Offices and Mills: TROY, OHIO — Sales Offices: Atlanta, Chicago, Cincinnati, Cleveland, Los Angeles, New York, Philadelphia, St. Louis, San Francisco — Distributors from coast to coast.

LITH-KEM-KO Jeep Etch for reproduction fidelity

Giving a Full Range of Tonal Values ...

Positively sensitive! — like the vibrant strings of the violin: Lith-Kem-Ko Deep Etch Positive Sensitizer — a constantly perfected process formula with its well known high resistance to humidity.

Lith-Kem-Ko positive Sensitizer will keep under normal storage conditions for extremely long periods without any thickening or crystallization, a feature heretofore unknown in Seeh Steh coatings, it is also available without dye. We supply at no extra charge a Plasticizer which may be added to the regular solution to prevent cracking of the stencil in areas of extreme low humidity.

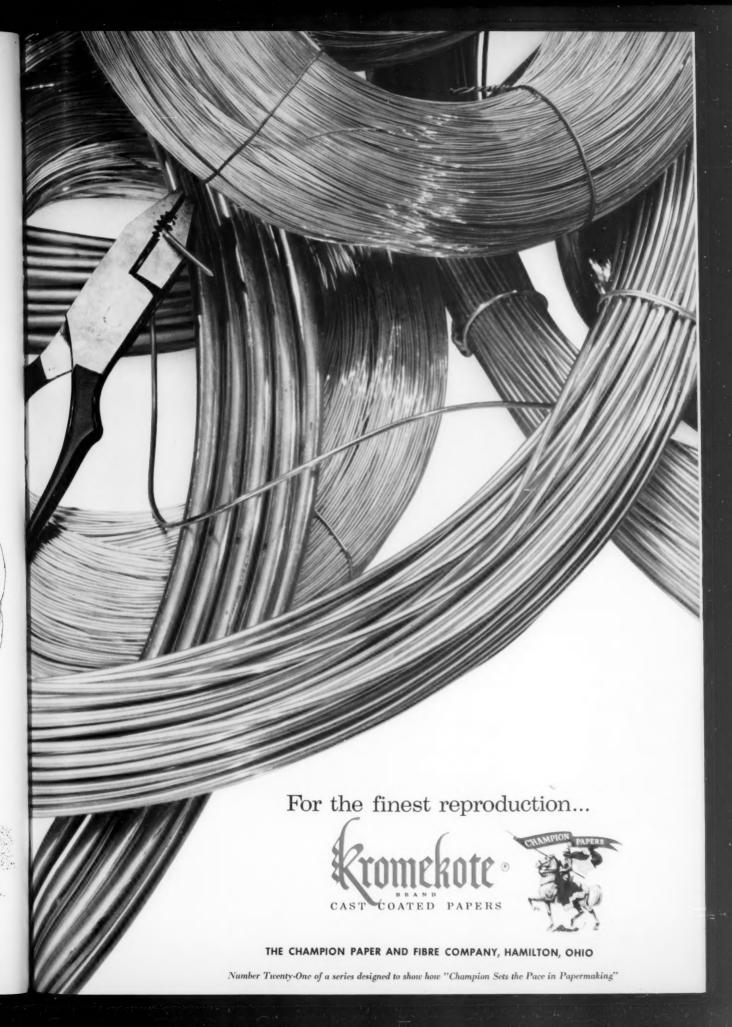
LITHO CHEMICAL

& SUPPLY CO., INC.
46 HARRIET PLACE
LYNBROOK, LL NEW YORK
WHITCHAIL

PRICES

1 quart \$1.65 12-1 gallons, per gallon \$4.

1 gallon \$5.00 24-1 gallons, per gallon \$3.75 (Prices slightly higher on the West Coast)





these Papers by Name



Satin Proof Enamel Hingefold Enamel Refold Enamel Falcon Enamel Format Enamel Wedgwood Coated Offset Templar Coated Offset All Purpose Litho

CAST COATED PAPER

Kromekote Enamel Kromekote Label Kromekote Litho
Kromekole Cover
(Cast Coaled 1 Side)
Kromekole Cover
(Cast Coaled 2 Sides)
Kromekole Postcard
(Cast Coaled 1 Side)
Kromekole Postcard
(Cast Coaled 2 Sides)
Kromekole Postcard
(Cast Coaled 2 Sides)
Kromeko Kromekote Litho

DRUM FINISHED PAPER

Colorcast Box Wrap Colorcast Gift Wrap Colorcast Label

COATED COVER

Hingefold Coated Cover Refold Offset Cover

DULL COATED BOOK

Dullofold Coated

UNCOATED BOOK

Garamond Antique Garamond English Finish Garamond Text (W.M.) Wedgwood Offset Pasadena Offset

UNCOATED COVER

Ariel Cover Cordwain Cover

ENVELOPE PAPER

Colored Wove Envelope Radiant White Envelope Foldur Kraft Envelope Gray Kraft Envelope Suntan Kraft Envelope Ne'er Tear Envelope

COATED POST CARD

Campaign Postcard

BRISTOLS

Inventory Index Canton Postcard

TAG

Tuf-Tear Tag

BOND, MIMEOGRAPH

Ariel Bond Scriptic Mimeograph

PAPETERIE

Wedgwood Papeterie Garamond Papeterie (Embossed and Printed)

PRESSBOARD

Champion Pressboard Imitation Pressboard

SPECIALS

Cigarette Cup Stock Food Container Stock Coffee Bag **Tablet Papers** Drawing Papers Red Patch Stock Stencil Board Pattern Board End Leaf Paper





The Champion Paper and Fibre Co. General Office: Hamilton, Ohio

MILLS AT HAMILTON, OHIO . . . CANTON, N. C. . . . PASADENA, TEXAS

For full information on how this advertisement was produced, write our Advertising Department, Hamilton, Ohio



TRADE-MARK



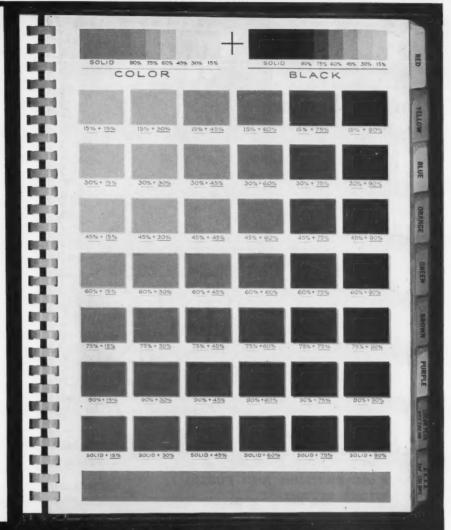


HAPPY BIRTHDAY



2-color
lithography
exactly right...
every time...
without
guesswork...
without error...
because
you SEE the
printed
result
BEFORE
YOU START

with



100 COLOR INDEXED PAGES (ACTUAL SIZE 91/2 x 14)-HANDSOMELY BOUND

DUO-COLOR GUIDE

SEE the 2-color result before work is begun.

SPECIFY

colors and screens as indicated in the Guide.

GETexactly the effect you want ... every time.

Printed patches of 4,200 different 2-color combinations. All the most effective colors in every practical 2-color combination, in every useful combination of screened percentages. Color and screen specifications shown for each printed patch.

ORDER YOUR DUO-COLOR GUIDE TODAY!
GRAPHIC PUBLISHING CO., INC., 240 W. 40 St., New York 18, N. Y.

GRAPHIC PUBLISHING CO., INC. 240 W. 40 St., N. Y. 18, N. Y. Gentlemen:

- I'd like to examine the new DUO-COLOR GUIDE. If I do not return it within 10 days you can bill me for the \$35° cost, plus shipping charges.
- ☐ OR I know now that I want the new DUO-COLOR GUIDE. Enclosed please find my check for \$35°. You will pay the shipping charges.

*If delivery is made in New York City add 3% sales tax.

FIRM NAME		
ORDERED BY		
STREET		
CITY	ZONE STATE	

You are cordially invited to attend



the WORKSHOP CONVENTION

NATIONAL ASSOCIATION OF PHOTO-LITHOGRAPHERS HOTEL STATLER, CLEVELAND, OHIO Wednesday, Thursday, Friday, Saturday, September 21-24, 1955

... A workshop where you and your key men get new ideas, new impetus and a new outlook from men who have had long years of experience. Here are some of the important phases of lithography which will be discussed:

- * SELLING MORE LITHOGRAPHY
- YOUR ADVERTISING AND PUBLIC
- MPROVING YOUR PRODUCT THRU QUALITY CONTROL
- NAPL LITHOGRAPHIC PRODUCTION
 STANDARDS
- LABOR RELATIONS IN THE
- SILK SCREEN AS A SUPPLEMENT TO LITHOGRAPHY
- All-day Saturday will be given over to Technical Sessions on Lithographic Shop Operations Questions and Answers no long speeches meaty answers based on the experience of some of the most competent men in the field.

EXHIBIT

Every available spot on the convention floor will be utilized by those who sell the lithographic industry to show what's new in Equipment, Supplies and Services.

VISIT TO HARRIS-SEYBOLD PLANT

Write for Convention Program outlining complete details on this "must" meeting.

Write the Hotel Statler, Cleveland, Ohio, today for room reservations.

NATIONAL ASSOCIATION OF PHOTO-LITHOGRAPHERS

317 West 45th Street

New York 36, N. Y.

*You need not be a member to attend.



It costs no more to



...when you run

CONSOLITH **OPAQUE**

...the coated offset at uncoated paper prices many advantages of a fully mineral-coated sheet without paying a cent above the cost of ordinary uncoated offset stock.

On the press, CONSOLITH OPAQUE's fully coated matte finish surface delivers sharp, crisp definition of halftones and solids in black-andwhite or multicolor lithography without mottle. Its outstanding dimensional stability assures smooth, uninterrupted press performance.

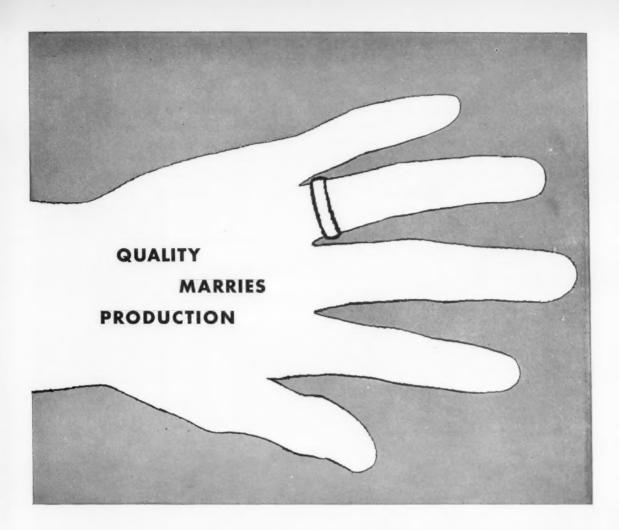
Another important advantage is complete freedom from annoying "two-sidedness." You'll find CONSOLITH OPAQUE combines exceptional opacity and bulk with brightness and color to meet the most exacting lithographic requirements.

Ask your Consolidated merchant for free trial sheets of this new and different offset paper that is already being used to competitive advantage by many leading shops. He's the only one who has it. Compare it for cost, performance, and results with both coated and uncoated papers. You'll discover it costs no more to make better impressions on CONSOLITH OPAQUE.



enamel printing papers

production gloss • modern gloss • flash gloss productolith . consolith gloss . consolith opaque CONSOLIDATED WATER POWER & PAPER CO. . Sales Offices: 135 S. La Saile St., Chicago 3, Hi. THE OFFSET OPAQUER PAPER is the base of her job The Opaquer silhouettes, cleans up negative, separates for color and checks registration. NEW **TICONDEROGA** TEXT with choice of two whites-the new Polar White and soft Colonial Whiteplus 7 colors. Watermarked Ti-Text is ideal for announcements, brochures, book jackets, programs, greeting cards, menus, etc. Laid or wove finish. 60 and 70 lb .- plain or deckle edgewith envelopes to match, and in Coverweight. International



WHEN YOU USE ANSCO REPROLITH ORTHO TYPE B FILM

HIGHER SPEED. This faster film permits real savings in time when making exposures in the camera or in printing frames.

FULL ORTHOCHROMATIC SENSITIVITY. The wide range of color sensitivity allows use of filters for improved rendition of copy, thereby reducing the need for hand work.

PLUS high resolving power...fine dot etching qualities...clarity in white areas... steep

gradation . . . wide developing latitude.

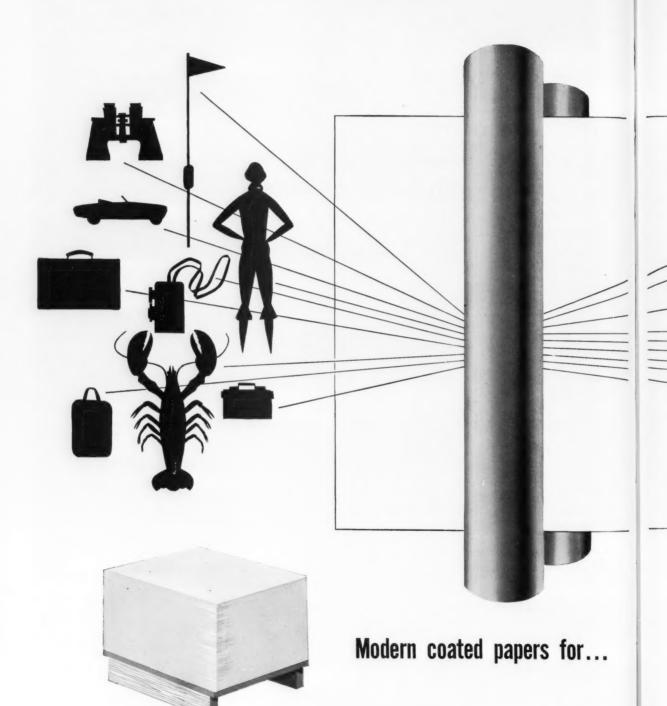
For maximum efficiency, standardize on Ansco Reprolith Ortho Type B Film.

ANSCO REPRODOL, the modern graphic developer. Yields maximum density and contrast, develops in 2 to 3 minutes in fresh solution. Packed in laboratory-mixed units making 2 and 10 gallons.

ANSCO

Binghamton, New York. A Division of General Aniline & Film Corporation. "From Research to Reality."

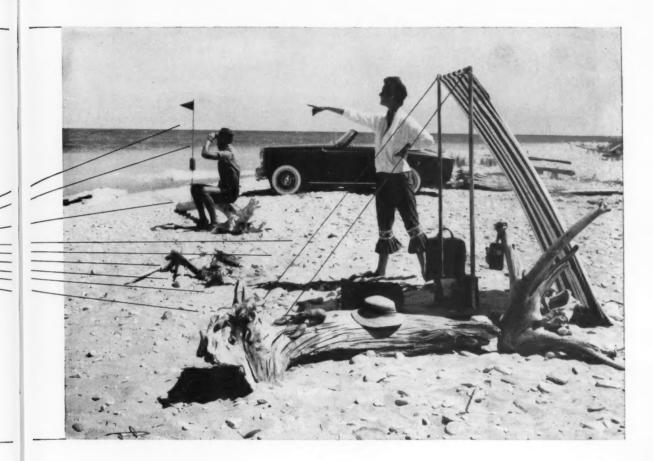
Everything comes to life on



Kimberly-Clark Crandon Enamel

From line to halftone, monotone to full color letterpress, Crandon Enamel brings you sharpness and fidelity of reproduction that only a modern paper can give. Newest in Kimberly-Clark's family of fine papers, Crandon is engineered to make the most of the newest inks and techniques. It has a careful balance of dimensional stability, strength, uniformity, whiteness and all the other properties vital to smooth operation on the press and in the bindery.

Ask your Kimberly-Clark distributor to show you his convincing demonstration folder. Then try Crandon Enamel, or one of the other fine Kimberly-Clark papers listed below. You'll find you do your best on Kimberly-Clark stock!



Modern Lithography: Prentice Offset Enamel, Lithofect Offset Enamel, Shorewood Coated Offset, Fontana Dull Coated Offset.

Modern Letterpress: Hifect Enamel, Crandon Enamel, Trufect Coated Book, Multifect Coated Book.

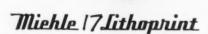


Kimberly-Clark Corporation • Neenah, Wisconsin

Investigate before you invest!



Sheet Size 14x20" Design Size 13x171/4" Speeds up to 5000





Find out

- * why the Lithoprint is a sure-fire hit on short runs
- * why the Lithoprint is the best bet for business and advertising printing
- * why the Lithoprint will help keep printing where it belongs

Investigate the quality, versatility and productivity of the Lithoprint. Then invest your 'small offset' dollars in this sensibly priced equipment designed for economical production of short run work.

PRINTING PRESS & MANUFACTURING CO. Chicago 8, Illinois

The Miehle • Leader among the world's manufacturers of fine printing equipment.











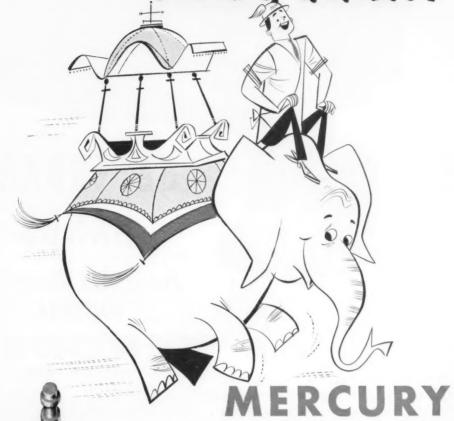




JUMBO VALUE

BECAUSE THEY'RE

JUMBO QUALITY



ROLLERS and BLANKETS

You get true economy in Mercury products, because they give you true money's worth. No other roller or blanket made can beat the mileage you get with Mercury.

What is more, these accessories save you money in other ways — by reducing makeready time and wash-up time, cutting down on paper spoilage and above all by delivering the top quality jobs which keep customers coming back for more.

RAPID ROLLER COMPANY

FEDERAL AT 26TH STREET • CHICAGO 16, ILLINOIS
Eastern Office: 800 McCarter Highway, Newark 5, N. J.



with

KERODEX

NOW supplied by PITMAN

An invisible, flexible coating of KERODEX skin cream protects hands from all harmful irritants encountered in the graphic arts... provides an impenetrable barrier against attacks on hands and other sensitive skin areas.

KERODEX is the most effective protective cream available—its unique formulation the final result of many years of research and in-plant testing.

KERODEX is easy to work with, takes only a few seconds to apply.

KERODEX does not affect materials...costs only a few cents a day to use.

Two types:—KERODEX #71 for protection against water soluble acids, chromates, including chromic acid, and alkalies; KERODEX #51 for protection against solvents and other water insoluble irritants. Both types in 4 oz. tubes and in economical 1 lb. and 8 lb. containers.

Pitman for all Graphic Arts needs

For extra safety, order KERODEX in the type and size you prefer...today! ...from your nearest Pitman office

Distributed by

HAROLD M. PITMAN COMPANY

Chicago 50, Illinois-33rd Street & 51st Avenue North Bergen, New Jersey-1110 13th Street Cleveland 11, Ohio-3501 W. 140th Street New York 36, New York-230 W. 41st Street Boston 10, Massachusetts-266 Summer Street-Pitman Sales Co.



HEN you go to a litho convention, it's nice to hear general discussions of lithography, predictions, top management problems, etc. But many lithographers look for the "meat and potatoes" that they can take back to the shop with them and apply in their own jobs the day after they return from the meetings.

It is understandable then, that the annual Saturday Technical Session at the NAPL convention is the best attended portion of the program. The National Association of Photo-Lithographers, which knows a good thing when it sees one, has rounded up another top-notch group of experts on various aspects of litho for this year's session, with Bill Stevens of Miehle again tossing out the questions.

Like the Lithographic Technical Foundation forums so popular at litho conventions and litho club meetings, the question and answer program is the kind of convention program lithographers never seem to tire of—because they can *use* the information that is forthcoming from it.

A ND, speaking of LTF, the foundation gets a big share of credit for making the offset process profitable at a big Midwest plant. The firm, Sayers Printing Co., St. Louis, took a crew of letterpress operators with no litho experience a few years ago and molded them into offset craftsmen largely through the use of LTF training booklets and aids.

Sayers (as described in the article starting on page 36 in this issue) didn't switch completely to offset. In fact, lithography accounts for only about a quarter of the company's business, at present. President Herbert W. Sayers says offset and letterpress eventually will be divided 50-50 in the plant.

We think Mr. Sayers has a pretty sane viewpoint on the offset-letterpress production question. It is his view that printing buyers aren't particularly interested in whether an individual job is done by a particular process; but they *are* interested in how the job looks when it comes off the press. Hence, he feels, it is up to the printer to use his judgment in deciding which process is best adapted for the job at hand. In some cases, he adds, a combination of the two methods on one job sometimes is advisable.

There's no reason why offset and letterpress should be at war with each other. Each has its place, as technical men in the graphic arts have been declaring for years. In an expanding economy, there is plenty of room for more printing sales for all processes.

It is in the marginal areas where the various methods overlap that lithographers must do a real selling job to show that offset is the best process for the job.

PHOTO composition, which was the major conversational topic among U. S. lithographers two or three years ago, apparently has just made its full impact on European lithographers. According to the special ML report on the IPEX show (pages 46), this subject received most attention. To visiting Americans, who may have lost touch with developments in the rest of the world, the drawing cards were German and English presses and German cameras, but only because the lithographers were already familiar with the amazing developments by suppliers here at home.*



Noon Day before races, company receives the card giving complete list of entries, for the eight daily races. Here Donald Landmesser sets it on linotype.



Same afternoon, galley proofs are sent to Delaware Park. Harry Papaleo, compositor, is at work on the over night entries on afternoon before publication.



It's a Saturday program, so William N. Cann, Jr., is up early to call in scratches and jockeys from Delaware Park Racing Secretary's office. Deadlines are an hour later on weekdays. Jerome Sheehan, production manager at Cann, receives call.



William N. Cann Co. has

A Day at the Races

32 days, in fact, printing daily racing program by offset for Delaware Park

Del., printers and lithographers, like to get nostalgic about the hectic days back in 1950 when the company took on the job of printing a daily racing program for Delaware Park—half of it by offset.

They solved that problem by printing an early batch by letterpress, then following with another batch by offset, using plates prepared while the letterpress portion was running.

"Still, it was largely a prestige job," William N. Cann, Jr., recalls, "and it required a break-neck pace at first, with no room for mistakes or holdups."

For three days last year the firm, with memories of those early days of crisis still vivid, experimented with

8:20 Now the job is on its way. Harvey W. Webb puts repro in the copy board and shoots it. A long-time employe, he is now a vice president.

8:30 Soon as they are shot, negatives are developed. Here William P. Rhodes takes them out of the developer.

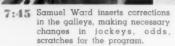
8:35 William Stierle strips the negatives into flat, getting it ready for the platemaking department. Job is ready in a few minutes.













Houston read proofs after corrections have been made. Delaware Park allows no mistakes on job.



Alta Gregg (l.) and Elizabeth #:10 Repro proof is pulled by Richard Umbrecht. Bill Cann has returned with master proofs, which are read against repres of first four races. First repro is OK'd by 8:15, others follow.

the unique idea of running the race program entirely by lithography. something no other track printer had previously accomplished, according to the company.

Once again, there were days of hot sweats, but Cann employes gained enough confidence in that short time to do the hundreds of thousands of programs this year by offset-and profitably-for the 32day meeting.

The experience is an excellent example of a highly integrated production setup, which was well planned and well executed. It is a model that other lithographers, faced with similar rush jobs, could do well to study. The Cann company method involves no special equipment or techniques, and it could be adapted by a medium sized litho shop to perform similar rush jobs.

There isn't a minute wasted in the Cann setup. One of the biggest obstacles-location of the track seven miles from the shop-has been overcome by working right at the track (photo number 3) to get the changes and by dispatching the printed programs by truck and car in three or four staggered deliveries. And to speed things up further, plates are made in 45 minutes.

On the day that MODERN LITHOG-RAPHY visited the Cann shop on Delaware Ave. (a Friday), the programs for that day's races were being completed shortly after 11 a.m., despite a short tieup in the bindery. Young Bill Cann, vice president, outlined the time table for the job, as shown in the accompanying photos, and told how the company, headed by his father, had gradually weaned the job from letterpress to litho in four years.

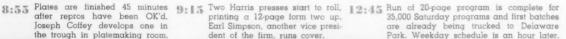
"In 1950 we used two letterpress units and two offset presses," he explained. "By 1952 we were doing the job with one letterpress and two offset, and late last year we took the final step, using only two offset presses. We knew we had the thing licked last Labor Day when we ran off 32.000 programs and delivered them to the track by 1:30."

William N. Cann, Sr., president, heads a group of 28-30 employes who devote themselves exclusively each morning of the track season to working on the programs. The elder

(Continued on Page 109)

after repros have been OK'd. Joseph Coffey develops one in the trough in platemaking room.

printing a 12-page form two up Earl Simpson, another vice president of the firm, runs cover











MODERN LITHOGRAPHY, August, 1955





First Train to Rust Craft Station. Rustie is helped from the cab of the engine of the first train from Boston to the new Rust Craft station, by E. Wrightson Christopher (left), president of Rust Craft Greeting Cards, and Gerrit J. DeVriese, Needham, Mass., road foreman of the New Haven Railroad. More than 100 Rust Craft employees rode the Boston-Rust Craft Station train on its initial trip to the new \$3,500,000 Rust Craft plant in Dedham, Mass.

Rustie will fly from Maine to California, and from the Canadian border to the Gulf of Mexico, telling the story of lithographed greeting cards, on television, radio, before women's clubs, service organizations, and other groups.

"Rustie" Promotes Cards

RUSTIE of Rust Craft, living symbol of lithographed greeting cards, is the focal point of an ingenious merchandising and promotional campaign by Rust Craft Greeting Cards, Dedham, Mass. The program was launched last month with the introduction of Rustie to newspapers, magazines, radio, and TV, at the greeting card company's New York offices, 30 Rockefeller Plaza.

As part of the campaign, Rustie will fly a light Luscombe two-place plane during her tour of the 135 Rust Craft sales areas in the country. Rustie's plane is decorated to match her specially-designed costume, having her name on the nose of the craft and greeting card designs on the fuselage. Added promotional value was given when she competed

in the July 2 annual Powder Puff Derby, the trans-continental race under the auspices of the Ninety-Nines, international women pilots' organization, from Long Beach, Calif., to Springfield, Mass. She is New England secretary of the Ninety-Nines.

Experienced Aviatrix

She has participated in three Powder Puff Derbies and last year, flew a huge birthday card to West Branch, Iowa, on the occasion of ex-president Herbert C. Hoover's 80th birthday.

Rustie got her chance to make history in May, 1954, when she became the fourth woman to fly a jet plane. The flight took place from Hanscom Field, Mass.

She took off from Boston with

her co-pilot, June 19 for Long Beach, California, to compete in this year's Powder Puff Derby, July 2-6 which ended in Springfield, Mass. Preceded by an escort of F-94 Starfire jets, it was the first time in aerial history that a military escort was given to a civilian girl pilot by the 102 Fighter Interceptor Wing, Mass., ANG.

Rustie, only Bostonian in the Derby, was made an honorary member of the 101st Fighter Interceptor Squadron by Brigadier General Halstead, and given a good luck charm, an insignia patch worn by the jet flyers. She also received a Paul Revere hat from Mayor Hynes of Boston which she flew across the country to Mayor George N. Vermillion of Long Beach, Calif., plus a letter of greeting from the people



Rust Craft railroad station, first of its kind ever built in an effort to aid Massachusetts industry, was dedicated May 2, with more than 100 Rust Craft employees on board the first train from Boston.

This brand-new station, named after the new 10-acre, \$3,500,000 Rust Craft lithograph plant in Dedham, Mass., has been established through the combined efforts of Rust Craft Greeting Cards, the Industrial division of the New Haven Railroad, and the Industrial division of the Town of Dedham.

Riding in the cab of the engine of the first train in celebration of the event were Rustie; E. Wrightson Christopher, president of Rust Craft Greeting Cards; and Stephen P. McDonough, assistant vice president in charge of operations for the New Haven Railroad.

Dedham town officials, headed by John J. Flynn, chairman of the Town of Dedham Industrial Commission, met the first train. Rust Craft station is listed on all timetables. There is a morning and an afternoon train to the new station.

About 1,500 men and women will commute to the new lithograph plant when it is completed this summer.

for Rust Craft

By Sidney J. Paine, Boston correspondent

of Boston to the people of Long Beach.

After the military review, Rustie and her co-pilot boarded her plane with the best good luck wishes from several hundred Rust Craft employees and a thousand Air Guardsmen on hand for the takeoff.

Rust Craft Station Created

Cooperation from the New Haven Railroad and the industrial division of the Town of Dedham, helped establish the Rust Craft railroad station, first of its kind ever built in an effort to aid Massachusetts industry. Listed on all timetables, two trains a day now frequent the station. When the company's new lithograph plant in Dedham is completed, about 1,500 people are expected to commute, via the New

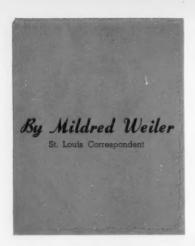
Haven Railroad. Together with Rustie and E. Wrightson Christopher, president of Rust Craft, and Stephen P. McDonough, assistant vice president in charge of operations for the New Haven, more than 100 Rust Craft employees rode the first train to the new station on May 2.

In addition to her appearances with Rust Craft sales personnel at key dealer locations throughout the country, Rustie will visit childrens' and veterans' hospitals to present appropriate cards to them. She also will aid in community and municipal drives, such as Community Fund, Heart Fund, Cancer Drive, and others.

The attractive, red-haired young lady's costume is a specially-designed two-piece, cream beige suit, with (Continued on Page 111)



Rustie, living symbol of Rust Craft Greeting Cards, wears a specially designed ensemble in beige, fashioned with a full skirt, block-printed with copies of greeting cards done by offset lithography.



Sayers Combines Processes For Efficient Production

Uses modern equipment, LTF aids to assure quality, increase profits

AVING grown soundly and steadily since 1912, Sayers Printing Co. moved from its downtown headquarters in St. Louis, to a 15,000 square foot new onestory plant on Manchester Road, four miles from the city limits in March 1952.

The move meant a change in processes as well as location. With a 40-year reputation for quality letterpress printing behind it, the company realized that to serve customers better, offset lithography had to be included in the plans for the new operation, according to Herbert W. Sayers, president.

The move from the old plant was carried out without an hour of down time. This was achieved by running equipment in the old plant until all new presses were installed in the Manchester Road unit.

New Equipment

New equipment included two 29" Miehle offset presses which Mr. Sayers said were bought for their quality production at high speed and because they were the largest one-man units in production. He explained, "Our letterpress men learned from scratch how to operate the new presses and therefore had nothing to unlearn about outmoded methods in offset." Subscribers to the Lithographic Technical Foundation, the company used all the information available to help train its men in the latest offset techniques.

Mr. Sayers has great respect for the rapid progress made by the offset industry in the last decade and believes it is now furnishing the needed competitive incentive to improve letterpress methods and equipment.

Although the firm does not have a platemaking department, the pressmen are vitally interested in platemaking procedure. They attend an Eastman Kodak class in color separation and have observed procedure in local platemaking plants where the Sayers plates are made. Because they have some understanding of the other fellow's job, Mr. Sayers believes they know better how to handle plates and do a better on-press job.

Use Grainless Plates

Because the company specializes in long runs, most of the Sayers plates are the bi-metal, grainless type which continue to produce clear, bright reproductions after 100,000 impressions. "For this reason it is unnecessary for us to have a platemaking department," Mr. Sayers explained. "We feel that good offset platemaking, much like letterpress photoengraving, requires the specialty skills found in completely equipped trade plants."

The fact the plant is completely air conditioned contributes a great deal to the elimination of plate breakdown and there never is a need to remake a plate in a hurry.

Combination Job

With a combination letterpress and offset plant operation Sayers finds many individual jobs more efficiently produced by combining the processes. An example is a 32-page, two color booklet printed for Day-



Herbert W. Sayers, President of Sayers Printing Company in his modernistic private office, which is the administrative and creative center of the firm. Mr. Sayers is the son of the original owner, the late Frank W. Sayers, who founded the company in 1912.

Modern office lighting system fused with multicolor decor aids employee efficiency and gives proper illumination to color proofs. The extra length table at right is provided for customer conference.



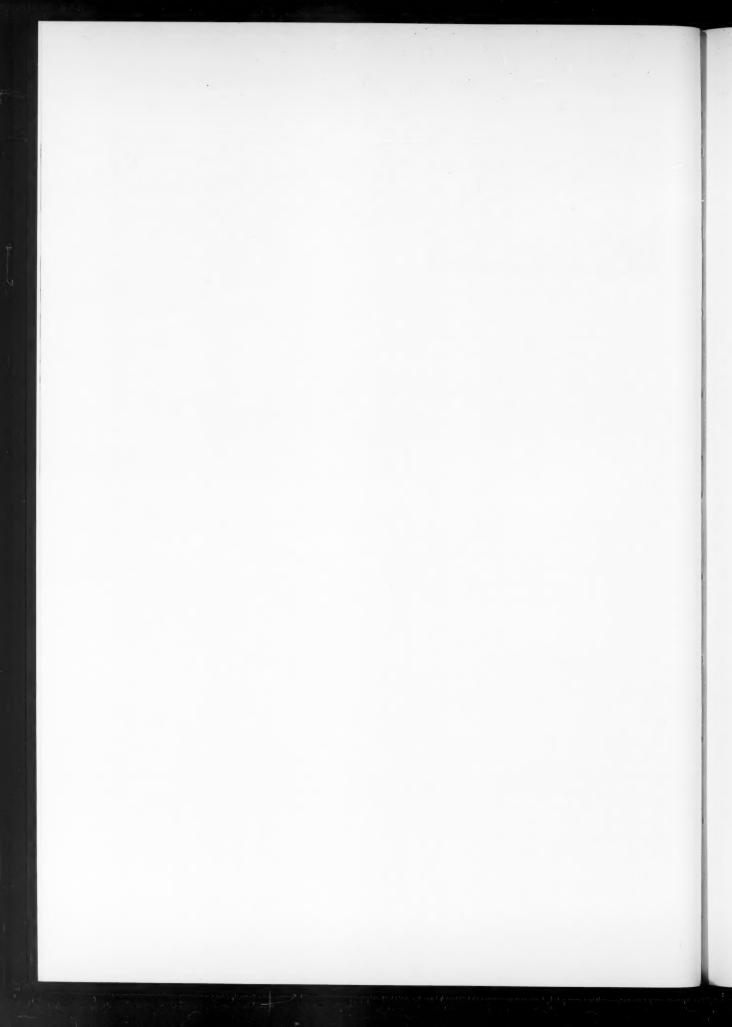
A pair of 29" single color Miehle offset presses right, were added to handle firm's volume of color advertising posters, mailing inserts and brochures.

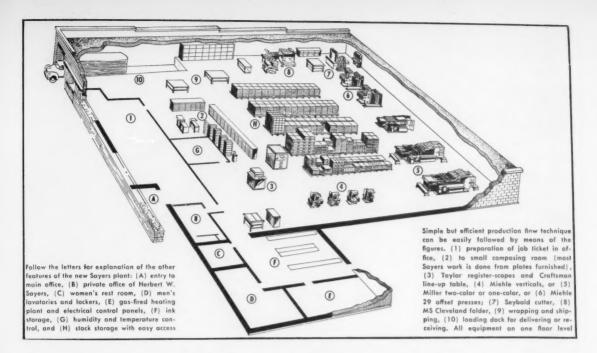
A 44" Auto Spacer cutter with precision control tolerance to 1/64" in foreground.



Letterpress section of pressroom. Skid of paper extreme right is one of many stored in center of air-conditioned pressroom two months before time it is used. Humidity control at 45% properly conditions paper, cuts down losses. Entire pressroom area is evenly and adequately lighted for critical high-speed printing operations.







Brite Lighting, Inc., of St. Louis. The client wanted the black and white half tones to appear unretouched in order to show the natural effects produced by its lighting fixtures.

Because the client felt the middle tone values in its photographs could be accentuated with the staging and re-etching done by photoengraving, this part of the job was handled letterpress. The fine line reverse charts on the other side of the sheet lent themselves to more efficient production by offset. As a result, facing pages were letterpress and offset.

Process Reprints

Another advantage of the combination plant is production of four color process advertising reprints which are produced letterpress and later converted into large display posters printed offset by shooting line shots direct from letterpress progressives.

The plant has found an additional advantage in offset by using the dry offset technique for solid color tinting of papers which formerly were handled on a flat bed letterpress. Press varnishing can be accomplished and certain very light forms can be run successfully by dry offset. This technique literally converts an offset press into a rotary letterpress, in

Combination offset-letterpress booklet for Daybrite Lighting, Inc., is shown at left. Other typical booklets are at right.







Single color and high fidelity process color work is produced on this pair of Miehle 29" offset presses. In the foreground is a Harris-Seybold 44" Auto Spacer cutter with tolerance to 1/64". Department store color work is a big part of business.

Four Miehle verticals do magazine reprints in four colors. Packages and skids of paper are stored in the center of this air conditioned pressroom to keep it at the right moisture level. Modern lighting is used throughout the plant.

the opinion of Herbert Sayers.

The completely air conditioned plant with temperature, humidity and electrostatic dust control contributes materially to the maintenance of quality production of multicolor printing. With temperature maintained at 75 degrees, relative humidity at 45 per cent 24 hours a day, the year around, and a complete change of air every 71/2 minutes, the Sayers plant has lost less than one quarter of 1 per cent of its volume because of spoilage through plate breakdowns over the past three years. On a two shift operation, in which rollers have a tendency to get soft during the hot summer months, the plant successfully maintains a full 16-hour production schedule with no loss on the night shift.

Perimeter Flow Plan

The floor plan of this modern plant is based on the perimeter flow principle. Production begins in the composing section just a door away from the main office. Thus the job or idea goes from office to composing section around the wall of the building, through the presses and then to the bindery. The pre-conditioned paper stock and supplies are drawn from the center of the production ring. Paper is placed in the center of the air conditioned room two months before it is to be used.

Creators of advertising ideas as well as offset and letterpress printers, the company uses the services of more than a dozen free lance artists rather than set up its own art department. In this way it feels it is

Offset and letterpress are quite compatible at this combination shop.

not limited to any one style and can give its clients a more flexible service.

The Sayers organization takes pride in the average length of service of its employes, which is more than 10 years. A profit sharing plan has been in effect since 1948 and vacations run from two weeks for

those with a year of service to a full month for those with 10 or more.

The plant's bindery equipment includes a 44" Harris-Seybold Auto Spacer cutter to handle precision label cutting with 1/64" tolerances and a 25 x 38 MS Cleveland folder to handle 9 x 12" 8, 12 and 16-page paste bound signatures. A Berry electric paper drill for some catalog work completes the department. Other operations such as mounting, die cutting and cellophane laminating are sent to trade specialists.

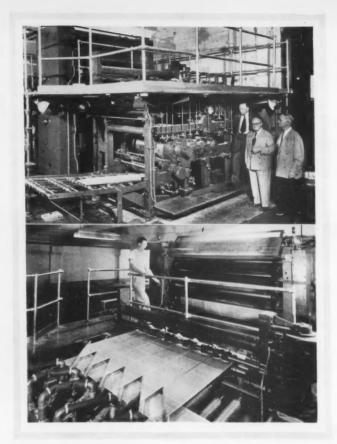
Although only 25 percent of its present sales volume is offset, the plant eventually will be evenly balanced between offset and letterpress, Mr. Sayers is quick to state. He feels that clients are interested in printing results and that the issue of whether an individual job is to be produced by a particular process is one for the printer to decide.

Herb Sayers, son of the late Frank W. Sayers, founder of the company, started work in 1921 as an assistant to his father after four years studying advertising at Washington University. His son now is an advertising major at Iowa State.★

Hoe web offset press designed primarily for printing telephone directories. Original partners (L.-r.) are Ralph Mort, Peter Binford and Maurice Binford.

View of top deck of the press shows how it splits sheet into six ribbons, then folds them up into 72 page sections for directory.

Portland Firm Prints 22 Phone Books By Offset



NE of the biggest lithographers in Portland, Ore., last month completed the annual July run of the huge city phone book by web offset.

The company, Metropolitan Printing Co., had been wary of converting the phone book job from letter-press to offset back in 1951, but the process has worked out so well, according to company officials, that 21 other directories for Oregon and Washington cities, have since been added. With this experience, the long press run last month went off very smoothly.

Faster Production Needed

The big switch was made to keep abreast of an expanding publication and to effect faster production schedules. The project centers around a 58 x 72" perfecting web press, manufactured by R. Hoe & Co., New York. Decision to changeover was made after it became apparent that improvements in multi-metal offset

plates would provide the dependable length of run required. Improved chemicals and inks for offset, making the process more stable, also were factors in the decision.

Ralph Mort, vice president and mechanical superintendent at Metropolitan, was instrumental in bringing about the change from stereotypes. He said offset is sharper and plate preparation time has been reduced 75 percent. Forms formerly were run as 64 pages, where now they are run as 72's. Under the old method, one complete extra set of stereotype plates had been required.

Crown-Zellerbach Paper Co., Oregon City, makes special unsized 28 lb. newsprint for Metropolitan, which contains a minimum of lint and which is lighter and tougher than regular newsprint. News offset ink was developed by two Portland suppliers. Plates are made by the company in its specially constructed plate room, which contains one of the largest whirlers in the West.

The folding unit of the press was constructed under the supervision of Mr. Mort. The signature is lithographed at an average speed of 11,000 per hour. The web is slit into six narrower webs which pass over folding bars and other folding mechanism to be brought together into finished signatures.

Folding Bars

A feature of some of these folding angle bars is an air stream which passes through the hollow bar, through tiny air holes where it forms a cushion of air around the bar. The web, passing over this air cushion is folded while at the same time the air reduces friction on the newly printed ink. The air also acts as an ink drier.

Finished directories contain 1,000 pages, and the run on each issue of the Portland book is 300,000.

Peter A. Binford is president of the firm and Ormand Binford is secretary-treasurer.* W ork simplification was defined in simple terms by Walter F. Schultz, in this manner: "Work simplification is simply the organized use of common sense to find easier and better ways of doing work. Its scope includes not only methods and procedures but also any device, tool or piece of equipment that will produce easier and faster without greater effort on the part of the worker." I think that is a concise and clearly stated definition.

What we are primarily concerned with, however, is what makes a work simplification program work in one plant and not in another. What ingredients are tossed in to cause it to win enthusiastic acceptance in some places and passive or perhaps even active resistance in others? What distinguishes work simplification from speed-up? These are a few of the questions that I think we have to focus on if we are to acquire a thorough understanding of work simplification as such.

Many Plus Factors

As I said, there are many plus factors. First is the manner in which the objectives of work simplification are stated to the people involved. I think these have to be stated honestly. I think the true objectives have to be made clear, because, after all, we are not going to get any place with such a program unless we have the full cooperation of those who will be called upon to participate. Work simplification does not always mean a lowering of unit costs. Sometimes it simply means making people more comfortable. Sometimes it means making the atmosphere a little more pleasant. Sometimes it means reduction of fatigue. Ultimately, the program as a whole, if it is successful, does result in lower unit costs.

Let me cite, for example, the case of some of our proofreaders. We noticed that they were all sitting on chairs of the same height. They were all working on a flat table which was the same distance from the floor. Since the proofreaders themselves were of different heights, we could not believe that they were comfort-

The PLUS factor in

Work Simplification



George W. McSweeney

able, so we made special proofreading benches and provided the proper posture chairs. These benches were built with a tilting arrangement for those who did not want to work on a flat surface. They were constructed with partitions for those who wanted privacy, but these partitions could be let down if the girls wanted to talk a little bit. In other words, what we designed was a custom-built type of proofreading desk, with the thought only of improving the comfort of the proofreaders. However, the end result was more accurate proofreading.

Push Trucks Improved

Another example, to illustrate an objective dealing with the lessening of fatigue, is the push trucks loaded with checks that our people have to move around the plant to the points where stitching, stripping and other operations are done. The girls who handle this work sometimes have to reach up to pull off the checks, and other times they have to stoop down to lift them up, so in order to make

it easier for them we equipped ourselves with what are known as "Lowerator Trucks." As checks are put on these trucks the level goes down, and as the checks are taken off the level comes up, so that the girls are always working at the same level and do not have to stretch, or stoop, or exert themselves in any unusual way.

Here again the objective was not to improve output nor to lower costs, but merely to reduce fatigue. I mention these two points because so many times we focus entirely on the dollar savings and I think sometimes if we would really sincerely establish objectives that were not necessarily related to money, we might profit even more than we would if we were influenced solely by the money incentive.

A second plus factor — and one which is quite important, I believe — is the necessity of being sensitive to change. Too many times we develop a work simplification program and think to ourselves, "Well, now that's finished." Work simplification is never finished. It goes on and on, and if we should develop something that is better than it was before, and we become happy and satisfied with it, we are too inclined to sit back and be smug, and the first thing we know our nice new procedure is outmoded.

Gold Stamper Additions

A case in point in our organization deals with the gold stamping of checkbook covers. Some 17 years ago we purchased a little gold stamping unit for \$84 that had a rated factory capacity of 800 covers a day with a good operator. Now, with this maBy G. W. McSweeney

President, DeLuxe Check Printers, Inc.,
Chicago

chine we stamp about 4,000 covers in the same period of time. As I look at the machine today, actually I do not see the unit I am looking at at all. What I do see is the little \$84 machine plus the many gadgets that have since been added to it.

When we first got the machine, we were horrified because it required 14 movements to stamp one cover, The operator had to put a slug in and lock it up. Then she had to unlock it, bring the handle down, and apply the proper pressure for the proper length of time necessary to do a good stamping job. Little by little we began to make improvements in that unit. I imagine that during the 17 years we have had it, there were probably 25 or 30 people who in some measure participated in the development as it now exists. We now have heat control, pressure control, time control, automatic cover feeding, automatic slug ejection, automatic lock-up. In other words, the girl simply loads the hopper, puts both hands on two safety buttons so that she cannot be injured by the machinery, and goes ahead and stamps the covers. Practically all effort has been removed and the output has been increased tremendously.

In a way this machine is symbolic, because it demonstrates the importance of being sensitive to change. Here we have been dealing with one little unit for over 17 years and we have not as yet wrung the subject dry. In fact, just last month other little improvements were being added. It is symbolic in another way, because it reflects the contributions of

a large number of people over a long period of time. All of these contributions were voluntary. Nobody asked anybody to make the improvements, but, as each person got the idea of a better way to do the job, we let him work out his own idea and, as each proved to be good, it was installed on the machine. As a producer of dollar profits this machine perhaps does not mean too much to the company as a whole, but it does serve to illustrate the importance of continually trying to improve an operation and never to conclude that the ultimate has been reached.

Management Must Spend

A third plus factor is the attitude of management toward capital expenditures. Work simplification is not cheap and probably never will be, because it involves so much in the way of gadgets, tools and special furniture and equipment. It management expects to do the job easier, then management had better be prepared to spend some money. Take factory furniture, for example. A bench is no longer a bench; a bench now is a work of art. It is something that is designed only after it is well known what is required to bring about simplicity of operation. It is designed for the comfort of the worker and it has to be carefully drawn up and expertly constructed. When you finally get it built and put in place, all covered over with a nice formica top and sparkling aluminum beading around the edges, you have a piece of furniture that could go into any kitchen.

Well, when you get that bench it looks so pretty that you have to paint the wall behind it, and then after you have done that, your machinery begins to look a little shabby so you reluctantly decide that you had better replace some of your obsolete stuff. And so it goes, on and on, and the first thing you know top management is beginning to worry about where the money is coming from. That is why I say that work simplification is not cheap and why I emphasize the importance of this third plus factor, because top management

has got to become reconciled to more capital expenditures if work simplification is to work.

How the Plan Works

In our company we make quite a distinction between ordinary capital expenditures as compared with expenditures for the development of gadgets. If our people want to buy a conventional piece of equipment it must be cleared through channels and be approved by those who set up the budget, and in many cases such requests are rejected. On the other hand, if someone wants to develop a gadget, he can, almost without discussion, go right ahead and produce it as long as it costs less than \$1000. If the gadget he has in mind is going to cost \$2000 or \$3000, he has to get a couple of supporting sponsors. But once that individual starts to make the gadget, he is the boss of the development. If he decides that it is beyond the scope of our own machine shop, then he has the authority to get it engineered outside and management does not have a darned thing to say about it. If it works he does not get any monetary reward, but on the other hand, if it does not work he is not criticized because we do not believe in criticizing anybody for errors of commission. We do criticize people-and particularly executives, for errors of omission, but never when they are trying to do something, even when that something appears to fail.

So, to sum up this particular point, I would like to emphasize again that the expenditure of money is an integral part of a work simplification program. You cannot have a clean plant unless you paint it and maintain it. You cannot have efficient machinery unless it is up-to-the-minute machinery. You cannot have specially designed factory furniture that will add to your efficiency unless you are willing to pay for this furniture, I believe, though, that such expenditures translate into more work, into better work, and into higher profits.

The fourth plus factor—and the one which I think is more important than any other—is people. In these days of push-button control, electron-

ics, automation, and all the many technical advances, we do not hear as much about people as we should, and it is too bad. it seems to me that we talk too much about eliminating people. Actually, we are not going to eliminate people, but because we are thinking so much of machinery, we oftentimes forget that people need the same care and maintenance that we give the machine. Perhaps it is too much to expect that our people should be happy. People are not happy these days. They never had more, but they probably have never been more unhappy. The thing we are concerned with, however, is to make them relatively more happy in our plants than they would be working for somebody else. Our problem is to keep them more mentally composed and cooperative than they would be elsewhere, and to accomplish this we have to try very hard indeed to develop the atmosphere that encourages this.

Management vs. Labor

I don't think I am departing too much from the point when I mention that in recent years there appears to be too much of a division set up between management and labor. Alexander Lindsey, the British philosopher, says this: "Industrialism has introduced a new division into society. It is the division between those who manage and take responsibility and those who are managed and have responsibility taken from them. This is a division more important than the division between the rich and the poor."

And how right he is! It seems as though management and labor are always fighting today, and we are not going to get good work simplification or good production or good profits for very much longer if that continues. Some place along the line there has to be a blending of management and labor. We will not allow the term "employe relations" to be used in our organization because the very term itself indicates that there is a division between management and labor. We did not have that term in our vocabulary when we were

youngsters; there should be no need for it to exist today.

Mr. McCaffrey, the president of International Harvester Co., in a speech two years ago entitled "What the President Thinks of When He Goes Home at Night," said: "The trouble with industry today is that it is full of human beings. I have noticed that two punch presses can work side by side year after year, day after day, and never get jealous of each other, and that's not true of people." I am sure Mr. McCaffrey said this facetiously, because I happen to know that he is a very practical humanitarian. What he was really pointing out was that the nice

Address delivered at Lithographers National Association convention, Lake Placid, N. Y., June 19-22.

thing about industry today is that it is full of people.

Nevertheless, people are problems and we frequently forget that such is the case because we are thinking too much in terms of technical things. We forget that we are dealing with very delicate machines when we deal with people. The degree of acceptance for our ideas, the degree of cooperation with our objectives, is dependent entirely upon people, and certainly no machine cares whether we create work simplification or not, but people do care.

Emotional Problems

Dr. William Menninger, the famed psychiatrist, speaking in Chicago last year, said: "It is a smart man who recognizes that all of us are a little queer at times. Seventy-five per cent of the people who have to be fired are dismissed because of social incompetence, rather than technical incompetence. Emotional troubles account for eighty-five per cent of stomach trouble and a large percentage of heart difficulties. Furthermore, one emotionally disturbed employe can mess up a whole department, and an emotionally upset executive might affect an entire busines. The most important factor that breaks or makes corporate relationships is an understanding of how people feel and

think, because how they feel and think determines what they do."

My old boss used to say, "If you must disagree with a man in business, make him like you personally." This is a little piece of wisdom that all of us should take to heart. You cannot get mad at a man if you like him personally no matter how much you might disagree with him in business, and if we ever are going to reach the point where we have what the technical people are now calling compatible systems and compatible methods, it will be only because they were developed by compatible people.

Must Like Each Other

If I were to put into capsule form the one thing that would do more to improve production, increase profits and simplify work, that one thing would be to make people like each other. I remember when we moved out of our New York and Newark plants and combined them both in Clifton, N. J. We immediately faced the problem of maintaining our service schedules, but the biggest problem we faced was the combining of one group of people that had worked for us for many years in New York, another group which had been with us for many years in Newark, and a third group which was just joining us. In combining these three groups of people, our problem was to make them like each other, make them cooperate with each other, make each foreman realize that the other foremen needed cooperation. As soon as we licked that problem we were back on our service schedule in no time at all.

It seems to me that if the top three or four men in any company really like each other, they can meet and argue and debate, and never get mad. There is plenty of room for differences of opinion in business, but there is also plenty of room on that common ground where those top men can meet and express towards each other the warm personal regard that they really and sincerely feel.

The horse with the evil disposition can yet pull the farmer's plow. The

(Continued on Page 111)

No Upsets with Offset



.... graphic arts educators were told at IGAEA'S "Back to School" offset clinic at Carnegie Tech., July 3-8

BRIGHT future for offset lithography was predicted by Ronald E. Alden, chairman of the offset lithography clinic sessions at the thirtieth annual conference on printing education, International Graphic Arts Education Association, Carnegie Institute of Technology.

Educators from all parts of the country met in Pittsburgh, July 3-8, to hear the latest developments in lithography, letterpress, composition and design. "Shirtsleeve" sessions were literally just that; coats were shed on arrival at Morewood Gardens Dormitory by all registrants suffering from the heat wave. The IGAEA meeting, held in conjunction with the annual meeting of the Education Council of the Graphic Arts Industry, Inc., July 7-8, got under way on the fourth of July with Kenneth R. Burchard, president, IGAEA, opening the program and presenting Samuel M. Burt, executive secretary, IGAEA, as keynote speaker.

First Joint Meeting

Mr. Burt set the tone of the conference with the theme, "Education Teams with Industry," and reminded graphic arts teachers that this was the first time graphic arts teachers and graphic arts industry people were meeting together in an all-industry conference on printing education. The Education Council of the Graphic Arts Industry used the phrase in headlining its recently-published progress report to the in-

dustry and it is hoped that the phrase will become a slogan for the future.

"We find ourselves in the forefront of modern educational thinking and practices," Mr. Burt said, and cited the following:

- a) "No other group of teachers associated with an industry have organized themselves into a professional association.
- b) No other group of industryassociated teachers can point to the kind and the extent of cooperation we receive from our industry.
- c) No other group of teachers, academic or otherwise, is engaged in the far-reaching project we have undertaken to put in writing our educational philosophy and best teaching practices in the form of recommended curricula for graphic arts in all levels of our educational system."

Mr. Burt warned however, that there is still much to be done to correct an "unconcerned" attitude with respect to developing or improving graphic arts education in some communities.

"Of the estimated 3,000 graphic arts teachers in the country, approximately 600 are members of our Association, and about 150 teachers are registered here at this conference.

"Graphic arts is being taught as it was 30 years ago in many schools," he continued. "Shop equipment is inadequate and/or antiquated, classroom atmosphere is depressing and there is no cognizance among some teachers as to the philosophy and practices of graphic arts education."

Ben Franklin Eulogized

Herman Jaffe, printer and graphic arts consultant, delivered the address at luncheon on the fourth, speaking on "1956, the Benjamin Franklin Year." Taking for his theme a quote from *Poor Richard's Almanac*, "We may make these times better, if we bestir ourselves," Mr. Jaffe detailed some of the lesser known accomplishments of Ben Franklin, whose 250th birthday will be celebrated next year.

Mr. Jaffe stressed the importance of inculcating in the minds of students, necessary background in the art of creative selling. Ben Franklin's ability to sell creatively was pointed out in his feat of selling the cause of the American revolution to France.

"Courses in printing techniques are basic," Mr. Jaffe agreed, "but education of a fundamental type should be provided on how to inject ideas into printing and thus make it less competitive, more creative and more profitable to the salesman and buyer."

The speaker proposed that IGAEA appoint a committee to explore the possibility of an educational, professional course in scientific salesmanship. Such an educational sales course would elevate selling of printing to a professional status, he said.

"I would like to see a combined practical and scientific course of study formulated, which would then enable the Educational Council to award a degree and diploma to the ambitious graphic arts student salesman. Graduates would enter the field of selling printing, equipped with scientific training and knowledge that would enable them to earn a greater income."

Graphic arts educators will find in Benjamin Franklin's life and career a wealth of themes for inspirational projects during 1956, Mr. Jaffe said.

Delegates to the conference spent the afternoon and evening of the holiday at the baseball park (Pirates vs. Dodgers) or trying to keep out of the sun, in the lobby and recreation rooms of Morewood Gardens.

Alden Reviews Offset Gains Ronald E. Alden, Carnegie Institute, chairman of the offset lithography technical clinics, held July 5 and 6, told educators that the strides taken by lithography in the past 10-12 years have won for the process, the reputation of producing consistently good results. Advances in type setting (photo-composition), plate-making (pre-sensitized plates, etc.) and presses, now make it possible to do high quality work day after day regardless of external influences. Harris-Seybold's film. "How to make a Good Impression," was shown, prefacing a line-up of talks by industry representatives.

Fred Popper, Fototype, Inc., spoke on phototype composition. Robert Gabler, Eastman Kodak Co., reviewed the Eastman autopositive film, advising that it is an effective shortcut, but that no enlargement or reduction in size can be obtained. The film is sensitive to yellow light only. Recent developments in the past two years by Eastman were listed as:

a) Kodalith super ortho film; b) Kodak auto-positive thin base film; c) Kodalith PB film (polyvinyl base) d) Kodalith auto-screening film (only 133 line available now); e) magenta screens; f) Kodak Photoresist; g) three-color printing system; h) Ektagraph film.

Miehle representatives, Alfred Hall and Harold Kollars, demonstrated the new Miehle Lithoprint press (14 x 20) and gave samples of the work done on the spot to interested educators.

Melvin Clark of Carnegie's offset department, explained procedures for making zinc plates, advising that cleanliness at every step of the operation is a prime factor in making consistently good plates. The LTF text #401 was recommended to teachers as an excellent reference work. Non-blinding lacquers used between the exposure and inking steps and the use of Kronak between the counter etch and coating steps were recommended as being of value.

Presensitized Plates
Presensitized plates were reviewed
by speakers at the Wednesday session: Charles Gillingham, HarrisSeybold, and George V. Murphy, Min-

nesota Mining & Manufacturing Co.

Mr. Gillingham advised that changes in humidity and temperature were problems that were eliminated with the use of the presensitized plate. He demonstrated the one-step process, applying Harris 3-in-1 solution directly to the plate after exposure, from the foil wrapping carton. The coating contains a gum and a de-sensitizer.

Photo-Typesetting, Big Drawing Card

Advantages of the aluminum plate over the zinc plate were outlined by Mr. Murphy. A sensitivity guide was recommended and a step 8 on the exposure strip was suggested to give maximum life and uniformity to the plates. The 3-M process was demonstrated, requiring three steps for development.

Registrants saw Carnegie's facilities for training graphic arts personnel, during Wednesday's session. Attendance at the afternoon clinic on composition was high, with Howard King, Maple Press, and consultant to Intertype Corp., leading discussions on photo-typesetting. Intertype's film "A New Era in Printing" was shown, giving details of operation of the Fotosetter.

John Porter, American Type Founders, Inc., was made the first honorary member of Gamma Epsilon Tau, college graphic arts honor society newly-established by the Association. George Halpern presided at the initiation ceremonies and introduced Paul Miller, president of the alpha chapter, Santa Barbara, Calif., and Joseph Barcelo, president of the gamma chapter Brooklyn.

The Education Council and the

The Education Council and the I.G.A.E.A. met in an all-day joint session on Thursday to hear case study reports from eight cities as to how printers and teachers cooperate in developing graphic arts industry-education programs to meet local needs. Speakers presenting these case history reports were:

Harry F. Howard, Plimpton Press, Norwood, Mass.; Loren H. Carter, (Continued on Page 107)

Miehle Lithoprint is demonstrated to offset clinic class by Harold Kollar, Miehle Printing Press & Mfg. Co.





William J. Stevens

Stevens

To Head

NAPL

Technical

Session

Cleveland Sept. 21-24

PANEL of seven litho experts next month will take part in what has come to be the most popular part of the NAPL convention program - the Saturday Technical Session.

The other talks and panel discussions scheduled for the meeting are expected to receive their share of attention, but the question and answer session which annually climaxes the convention is expected to fill the Statler's auditorium when the National Association of Photo-Lithographers meets in Cleveland Sept.

Not only will top management be present at the question and answer program; foremen and pressmen will be there as well. Participating in this part of the program will be the Litho Club of Cleveland, Lithographic Technical Foundation and the National Association of Litho Clubs.

Stevens To Moderate Once again William J. Stevens will be moderator at the session. Walter E. Soderstrom, executive vice president of NAPL, has announced the following group of experts to serve on the panel with Mr. Stevens, who is eastern offset sales manager for Miehle Printing Press & Mfg. Co.:

TECHNICAL - Michael H. Bruno, research manager, LTF; INK-Frederick J. Dankert, technical service manager, Howard Flint Ink Co.; PAPER - Joseph H. Dunton, vice president, sales, W. C. Hamilton & Sons; Plates-Adolph R. Fretcher, foreman of the plate department, Copifyer Lithograph Corp.; CHEMI-CALS-Albert R. Materazzi, technical representative, Litho Chemical and Supply Co., Inc.; FILM-CAMERA -John McMaster, manager of Graphic Reproduction sales division, Eastman Kodak Co. and PRESS-Howard J. Seel, chief development engineer for Harris-Seybold Co.

While the technical session will provide information for solving specific shop problems, other talks at the convention will give more general information on recent developments in silk screen, photography and equipment, supplies and

Discussing silk screen as a supplement to lithography will be Ralph Karsten, president of Screen Flock Industries. Inc., and vice president of the Screen Process Printing Association International. L. E. Goda, Ir., of Eastman Kodak Co., is the speaker who will bring the NAPL members up to date on "What's New In Photography." Covering the innovations in equipment, supplies and methods will be a panel headed by John F. Perrin, manufacturing manager of eastern plants for U. S. Printing & Lithograph Co. Panel members will be announced in the September Modern Lithography.

'Chick' Morris, Lithographer A popular speaker at litho conventions, Charles V. Morris, assistant

to the president of Henry Lindenmeyr & Sons, has the provocative title "'Chick' Morris, Lithographer, Examines His Advertising and Pub-

lic Relations.'

Two other important topics to lithographers - quality control and labor relations-are on the agenda. A panel discussion, with Stanley R. Rinehart as chairman, will cover the former topic. Mr. Rinehart is assistant manager of the printing division of Du Pont. George A. Mattson, executive director of the Chicago Lithographers Association, will consider the labor situation.

The remaining three addresses so far scheduled for the meeting include a talk by Kenneth McFarland, educational consultant to General Motors Corp., a discussion of lithographic production standards by management consultant Fred W. Hoch and a talk on the platemaker-lithographer relationship by William T. Stevenson, Stevenson Photo Color Separation Co.

Eastman Kodak's film "Bradshaw's Billions," showing how smart use of printing helps business, will complete the program. A full program of social activities is being planned by Mr. Soderstrom and his staff.

Added to Program

Added to the NAPL program as this issue went to press were the following: a talk on setting up litho (Continued on Page 108)

By Walter Sekules

PEX-the 10th International Printing Machinery and Allied Trades Exhibition held in London, July 5-16, produced a great deal of new equipment to interest lithographic printers. At this vast show, staged for the first time since 1936, the 338 exhibitors covered a floor space of 430,000 square feet. Major American companies were represented at IPEX along with concerns from England, France, Germany, Italy, Sweden, Switzerland, Holland, Belgium and Austria. The range of exhibits was so great that comprehensive reporting would fill a book or two. This report will concentrate on highlights in the major sections of interest to lithographers.

Photo-Composing Machine

First, the spectacular subject of photo-composition. Lithographers inspecting IPEX seemed to agree that some of the new phototypesetting machines have become thoroughly practicable propositions, giving high quality work. The Intertype Company's Fotosetter was strongly featured and attracted much attention from British printers. The Linotype Company brought over a prototype Linofilm machine which it exhibited on its giant display, but the machine was not seen operating during the course of the show.

The German "Typofot" machine, made by Hoh & Hanne, produces direct positive lettering from a registered stencil on photographic plates, film or stripping film. Letter-size is variable from 2-12 mm. All types of characters are available with this machine and can be easily applied. According to the makers, output is 20 letters per minute.

The Dutch Hadego system of display phototypesetting employs a camera with special operational features and control devices, used in conjunction with plastic matrices and specially adapted composing sticks; it is quite similar to a process camera and can in fact be used for this purpose with a small adaptation unit.

The British Monotype Corp. ex-

hibited its own "Monofoto" machine for the first time at an English show. (The machine has been seen in the United States.) The Monofoto photographs justified lines on a strip of sensitized film. The mechanism is in principle identical with that of the familiar caster, using the same type of perforated ribbon passing over air vents to activate the machine.

Davidson Display

Presses ranged from the small office-type to the heaviest offset machines. Davidson Corp., subsidiary of the Mergenthaler-Linotype Co. was prominent among the makers of

Smyth-Horne Ltd., English agents for Harris-Seybold, introduced the Harris 22x34 two-color offset press to the British trade, pointing out that the machine is built on big press lines and incorporates many outstanding features.

A very wide range of offset presses was shown by the English George Mann Co., associated with the Vickers group. Most important new exhibit was the Mann Master, claimed to be of entirely new design though it is based on the five-cylinder principle. The feed unit is designed as

Photo Composing In Spotlight At IPEX Show

small-size machines with the Dual-Lith presses for sheet sizes of 14x17 ins. and 10x14 ins. for offset, dry offset, embossing relief printing and embossing. Davidson Reditype presensitized plates and Davidson solutions also were featured. The range of small offset presses shown by the Rotaprint company included a new machine with a maximum printing area of 17x231/2 ins. Another improved model incorporates feed mechanism modifications, new rotary pump, side blowers and a feeler bar. A new numbering unit which can be applied to some of these models also was introduced by this company.

Another important maker of small offset litho machines, the Addressograph-Multigraph company, introduced the new Tandem Model Duplicator. This machine requires only one operator to double machine production on many classes of duplicating.

a complete pre-register mechanism with sheet slow-down combined with primary front lays, main front lays, checkfinger mechanism and side-lay. Front lays and side lays can be adjusted while the press is actually running. The swing-arm is positively cam-controlled in both directions of motion thus eliminating the usual return spring and insuring smooth operation at high speed. The damping unit operates on the 3-1 principle, giving very fine water control. The inking unit follows the Mann Company's pyramid design with an additional link to bring the ink flow down both sides of the pyramid. Printing pressure is adjusted by micro-dial and micro-adjustment is additionally available for slight alteration of blanket to plate pressure. The delivery unit is designed on the cantilever principle with a smooth line of chain run for higher speeds. Suction take-off and suction roller are fitted for accurate piling at high speeds. A power-operated pile hoist is incorporated additional to the normal automatic pile-lowering mechanism. Maximum sheet size of this machine is 50 ins. x 361/4 ins.

The Mann Junior Master machine appeared in an advanced design. Main refinement over earlier models is a positively-controlled swing arm in both directions and suction roller on the delivery, allowing sheets of wider range of weights and thicknesses to be delivered at speeds up to 7,500 impressions per hour. The Mann Junior Master comes in three sizes. Other Mann models on show were the perfecting rotary offset press and a metal decorating press.

Crabtree Units

The Crabtree Co. strongly emphasized its Mark 8 two color offset press which is fitted with the latest Elless dual action automatic and continuous loading paper feeder. Inking units are newly designed and claimed to be the most powerful and well thought out ever to be used on an offset press. This press has a maximum sheet size of $48\frac{1}{2}$ x $36\frac{1}{2}$. Other models included Mark 4 two color press with maximum sheet size of 371/2 x 251/2 and a Mark 6 perfecting offset press with maximum sheet size of 45 x 331/2. Both are fitted with H.T.B. feeder units. Another Crabtree model was a Tandem two unit metal decorating offset press with full automatic and continuous tin feeder. Chain-dog in-feed allows the sheet to pass through both units on an almost straight line.

th

n-

of

e-

ng

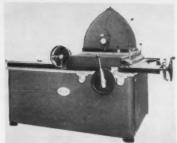
le,

he

nli. W id. by is alre. he th ds. ler

55

Non-English offset presses shown at IPEX were numerous and attracted much interest. The Swiss "Perle"



English step and repeat machine produced by George Mann & Co. Ltd.

offset presses, made by the Color Metal Co. of Zurich, are claimed to be the fastest presses of their type in the world, capable of speeds up to 8,000 i.p.h. with infinitely variable speed adjustments from 2,000 to 8,000 i.p.h. These machines have all shafts running in ball bearings with all gears helically cut and ground to the MAAG process.

A "two sheet" detector is positioned at the draw rollers and misfeed and misalignment cut-outs are operated by electric eye. A similar cut-out is positioned at the delivery end of the machine. The "Perle" machines are equipped with back separation stream feeder, full length 5 feet feed pile and 2 feet delivery pile and built in roller washing equipment. New features are brush damping, reciprocation of inking down to zero and a patent device for lifting the inking rollers from the plate cylinder yet allowing them to remain in contact with the riders. The inking unit comprises 20 rollers, each pair of different diameter to obviate repeat marking.

Small German Press Quite new was the Roland Automat, a small-size (14x20) offset press

made by Faber & Schleicher, Offen-

bach, Germany. Speeds up to 8,000 sheets per hour and highest quality work are guaranteed.

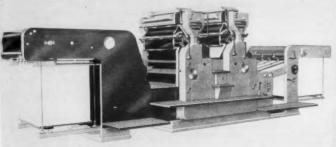
The French firm Seailies & Tison of Paris introduced a very interesting "Autobobine" offset press. Reel-fed, it is intended to produce work similar to that of this company's platen presses, but in larger sizes, on the following principle: The paper web advances while the machine makes half a revolution-the advance can be adjusted with a rack and pinion device corresponding to the paper advance. The machine is thus able to produce any size between zero and 50 centimeters in depth in steps of one sixth of an inch.

The web can be of any desired width up to a maximum of 281/4 inch, maximum printing width being 26 ins. While the machine makes the second half of the revolution, the paper web is stopped and all operations such as printing, cross perforating, round hole punching, numbering, zig-zag folding, etc. are carried out. Theoretically it might seem impossible to print a stationary web by means of a cylinder, as the paper web has to travel at the same surface speed as the cylinder for correct impression. A patented device overcomes this difficulty as follows: The web is formed into a loop by passing over two guide rollers in fixed positions and two rollers which travel in a carriage. This carriage travels backwards and forward, making one complete backward and forward movement for each revolution of the machine. The carriage moves when the rest of the paper web is stationary and thus provides a section

(Continued on Page 111)

Another English model, this Mann Master Quad Demy, is a two color offset press which was shown at IPEX

German Klimsch Super-Autohorika autofocusing camera also was shown at IPEX. It contains new masking features







Thomas P. Mahoney
President of Craftsmen

Craftsmen To Consider Offset for Packaging

OFFSET—as it is used for cartons and labels—is on the agenda as the 36th annual meeting of the International Association of Printing House Craftsmen gets underway in Cincinnati. Running from Aug. 7-10, the convention is being held in the Netherland Plaza Hotel. The talk on offset is listed for Wednesday afternoon, as part of a packaging clinic covering all phases of the graphic arts. Another talk, "Offset Litho: Gimmicks, Gadgets and Instruments," will be delivered Tuesday afternoon by James Kane, Success Printing & Lithographing Co., Indianapolis. Other talks, as listed below, are expected to touch more or less directly on the offset process. Lee Augustine is general chairman of the convention.

Sunday, August 7: Registration; Baseball—double header—Cincinnati Reds vs. New York Giants (Available—not part of official program nor included in registration); Opening session; Over-the-Rhine party.

Monday, August 8: International Convention Committee meetings; Convention business session; Address by Mr. John D. Corrigan, "The Dynamic Power in You"; Club Management Luncheon — "Philosophy of Management of Local Clubs," Herbert Livesey, executive secretary, National Association Printing Ink Makers; "Club Program on How our Business System Operates"—Wm. F. Gutwein, chairman, International Supervisors Training Committee

Supervisory Training Committee.

In the afternoon: "Gravure Steps Out"—
Moderator Jos. Jorling, McDonald Printing
Co.; "Photo Engraving and Finishing of
Rotogravure Cylinders"—Oscar Smiel, Intaglio Service Corporation; "Modern Gravure Presses." Elmer Stacey; E. G. Staude
Manufacturing Co.; "Inks for Gravure Operations," Robert Griffith, Interchemical Corp.;
"Gravure's Position in the Publication
Field," Allen C. Black, The Crowell-Collier
Publishing Co.; "Gravure Printing in the
Packaging Field," Carl A. Ireton, Specialty
Papers Co.

Ålso scheduled for Monday afternoon: "Solutions to Some of Our Letterpress Problems"; "True Rolling—Theory and Practice," Al T. Kuehn, Miehle Printing Press & Mfg. Co.; "Minimum — Precision Make Ready," O. F. Duensing, Vandercook & Sons; "How to Cope with Paper Variations"; "Offset Eliminators and Letterpress Operations."

Tuesday, August 9: International Convention Committee Meetings; Convention Business Session; "Sidelights of Printing," Ken Burchard, chairman, International Technical Committee; "Preventative Maintenance of your Printing Equipment," Russell Anness, Gardner Board & Carton Co.; "The Humanics of Quality Control," B. E. Sooy, Wolverine Carton Co.; "Safety Programs"—Peter Bernard, chairman, International Safety Committee.

In the afternoon: "Printing Week Luncheon." Floyd Larson, chairman, International Printing Week Committee. Presentation of Printing Week Awards — Thomas P. Mahoney, president, International Association of Printing House Craftsmen; "The Michiana Printing Week Story," Rawson H. Murdock, Jr., chairman, Michiana Club 1955 Printing Week Committee; "What Are You Doing About 1956 Printing Week,?" Floyd Larson; Lamp Lighter—Inspirational talk by Dr. Kenneth McFarland, educational consultant, General Motors Corp.; "Gimmicks, Gadgets and Instruments," Technical program being arranged by Indianapolis Club.

In the evening: Coney Island Party — Chicken buffet dinner and dancing in Gardens.

dens.

Wednesday, August 10: International
Convention Committee Meetings; Convention Business Session; "Packaging Clinic"

— Moderator, Walter E. Sooy, Gardner
Board & Carton Co.; "Package Design and
Package Development," Wm. Romney,
Procter & Gamble Co.; "Offset Printing of
Cartons and Labels; "Flexographic Printing of Films and Foils," Robert Jones, The
Dobeckman Co.; "Letterpress Printing of
Cartons," Mel Kernan, The Ohio Boxboard
Co.; "Gravure Printing of Paper Wrappers
and Labels," Delmore Moffett, Kalamazoo
Vegetable Parchment Co.; "Bindery Clinic."

In the evening: Cocktail Party: Annual

Banquet and Dinner Dance.

Program for the Ladies:

Sunday, August 7: Over-the-Rhine party. Monday, August 8: Luncheon - Fashion Show—Souvenirs, Prizes, Hall of Mirrors— Netherland Plaza Hotel.

Tuesday, August 9: Buses leave Netherland Plaza Hotel for Sightseeing Trip; Tea at Kenwood Country Club; Coney Island Party, buffet dinner and dancing in Gardens.

Wednesday, August 10: Brunch—Sheraton Gibson Hotel Roof Garden; Distribution of lucky number prizes; Cocktail Party in the evening: Annual Basquet and Dance

Paper for Offset

Wet-Strength Papers for the Lithographer

By J. C. Barthel

Technical Director

Paper Chemicals Department, American Cyanamid Company

LOSE COOPERATION between chemical manufacturers and papermakers is helping to improve the quality of offset printing papers and to minimize problems on the press which often cost time and money. Special chemicals have been developed which are added to the pulp from which offset papers are made. As a result of research already carried out, offset printers may soon have papers which combine qualities once considered impractical to incorporate in the same sheet. For example, very high strength and a high degree of dimensional stability have never been easy to achieve in the same sheet. Other equally "impossible" combinations of characteristics may now become realities because of the effects of the added chemicals on the qualities of the finished paper.

First Big Use In Maps

One of these chemical additives, a melamine-formaldehyde resin, made by American Cyanamid Company under the trade name "Melostrength," was used for the first time in manufacturing special paper stock that had its first test on the battlefields of World War II. Millions of army combat maps were printed or lithographed on such papers. They were subjected to harsh battlefield tests which included everything from being beaten in the mud with rifle butts to being run over by an army tank. The maps survived, the print remained legible and thousands of such maps were printed and used.

Says the Army Map Service concerning its experiences with the printing qualities of wet-strength paper:

"Since 1943 the Army Map Service has been using a wet-strength paper treated with melamine-formaldehyde resin for printing the maps it produces for the use of the nation's armed forces. From the user's standpoint, this highly improved printing base has proved to be a boon to the military man. Through its remarkable endurance qualities, it has successfully met the urgent need of military field forces for a map product which would stand up under the rigors of combat conditions. In addition to its being less bulky, the new paper has a high tensile strength, good opacity, high tearing resistance, and a greatly increased folding endurance. It resists water penetration and withstands abrasive action when wet or greasy.

"In addition to its durability under extremely adverse conditions, the improved paper provides a further advantage to the military map user in maintaining its size despite temperature and humidity changes. The paper now in use has been found to have a lower shrink and stretch tendency than previously used papers. Other features of the improved paper which are significant to the military map user are its ability to take draw-

ing ink after erasures have been made and to take pen and crayon markings even when wet. Furthermore, the paper, after having been wet, resists extreme wrinkling and distortion upon drying.

Good For Offset Says Army

"From the production standpoint, the printing qualities of resin-treated wet-strength paper have been found to be satisfactory. The paper is firm, with a level, even printing surface and a good affinity for ink. While the initial adoption of the paper required slight modifications in the lithographic inks and the moisture control system of the printing press, further usage has confirmed its suitability for offset lithography..."

In addition to maps, many other printed papers — currency (for example, all Canadian currency is printed on resin-treated stock) tags, labels and outdoor posters are among the finished products being lithographed on these new-type wet strength papers.

These new treated papers can provide printers with a half dozen quality improvements that help save time, money, labor, ink and paper.

Specifically, use of wet-strength papers containing such resins can help minimize register problems. This

Comparison of Some Properties of a Treated and Untreated Offset Printing Page 1	Comparison	of	Some	Properties	of	a	Treated	and	Untreated	Offset	Printing	Pape
---	------------	----	------	-------------------	----	---	---------	-----	-----------	--------	----------	------

	Tensile Strength (lbs/inch)	Oil Penetra- tion (sec.)	Opacity (%)	Degree Curl	Moisture Expansion per 15% relative Humid. Change (%)
Paper With Resin	13.2	44	85	52	0.07
Paper With No Resin	13.2	174	83	122	0.16

conclusion is based on the observation that the dimensional stability of a treated paper is much greater than for the same sheet without resin (Table I). Large size sheets of untreated offset papers are known to stretch as much as one-third of an inch between impressions.

Resin-containing papers also have increased pick and curl resistance. The surface fibers as well as all the fibers beneath the surface are held in place. Water cannot loosen them as in untreated paper; nor an tacky inks pull the surface fibers out as the ink is transferred from bedplates to paper. Lint on the blankets is eliminated. Washdowns are less frequent and the water-ink balance in the fountains is less likely to be disturbed.

Use of wet-strength offset printing papers helps eliminate the problem of fuzz and slitters' dust. Fewer washdowns are necessary because of the dust free quality of the treated papers. The film on the non-printing parts of the plate is protected against loss.

Figure I shows how curl and pick resistance are improved in a treated sheet compared to a sheet identical in every respect except for the added resin. This graph is based on research carried out by the U. S. National Bureau of Standards aided by the Lithographic Technical Foundation.

Resin Ups Folding Strength

Ink receptivity of the treated paper can be expected to improve because of the smoother surface, which allows a more uniform coating on the paper. The added resin also helps reduce the chances for the paper to split and tear out of the grippers if the sheet absorbs excessive dampening solution in multi-color work, especially if the sheets are large in size or light weight. The end result is that jobs can be done faster and with fewer breaks, especially in continuous web printing where a break can completely halt an operation.

The folding endurance of wetstrength papers may be increased by thousands of times. This is especially important in maps, charts, currency, and other papers that may be folded and carried in the pocket.

The significance of an increase in

strength as well as the other improvements in wet-strength papers is emphasized by the finding of the Lithographic Technical Foundation that

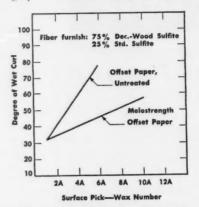


FIGURE 1—Comparison of surface pick and tendency to curl in two samples of same grade of paper—one untreated and one treated with MELOSTRENGTH resin. Larger pick number means greater resistance to surface pick. At surface Pick Wax Number 6A, untreated paper, shows almost 80 degree wet curl, while at surface Pick Wax Number 6A, MELOSTRENGTH paper shows less than 50 degree curl. Graph shows that MELOSTRENGTH offset paper can be made to curl less with higher pick resistance than untreated paper.

paper passing between the blanket and the impression cylinder gets a uniform squeeze of 40 pounds per inch along the impression lines. During passage through a lithographic press, the sheet picks up 0.1 per cent additional moisture for each impression

Strength in a sheet of paper is usually obtained through extensive beating of pulp at the paper mill. These pulps are usually a mixture of long fibers that give strength to the finished sheet, and some short fibers that add bulk, improve the oil absorption and increase the curl resistance of the paper.

During the beating process the long fibers swell up as water penetrates into them. Some pulps may be beaten as long as $9\frac{1}{2}$ hours in order to entangle the smaller fibers thoroughly to make a sheet of finished paper that has high strength and is dense and hard. Dense papers take up more moisture than soft papers. The compact fibers bound together in the finished sheet expand or contract with moisture changes around them. When the individual fibers become moist-

ened, they may swell as much as 30 per cent in diameter and only one to two per cent in length. Shrinkage, curl and poor oil absorption are often characteristic of sheets made with high strength as a result of extensive beating.

Bureau of Standards Research

The U. S. National Bureau of Standards found that addition of "Melostrength" resin to pulp (done at a paper mill) during the beating process helped give the sheet higher resistance to shrinking and curl as well as improved pick resistance and ink absorption. The added resin serves as a binder, holding the fibers together instead of their being bound to one another through extensive beating and exposure to water for long periods of time. Paper made from pulp containing the resin and beaten for only 11/2 hours developed as much strength as paper made from an untreated pulp beaten for 91/2 hours. The shorter beating time reduces the exposure time of the pulp to water. The added resin improves the internal bonding and adds other qualities that improve the paper, making for an easier printing job.

Many printed papers, along with a variety of other grades of paper, are frequently included in batches of waste papers which are reclaimed by paper and paperboard mills. More than 100 paper mills are manufacturing paper to which the resin is added. To reclaim these papers they are first deinked and defibered. Mills all over the country are economically and efficiently defibering papers containing wet-strength resins. (See ML, July, "How Waste Paper Can Work For You.") American Cyanamid Co. developed the first commercially feasible process for making paper that keeps its strength when wet by adding "Melostrength" resin to the

Development of these new resintreated printing papers represents another step forward in solving some of the more troublesome problems that are faced by offset lithographers. The use of resin at the mill is not meant to be a substitute for other

(Continued on Page 113)

Help for the Manpower Shortage

By Samuel M. Burt

Executive Secretary
Education Council of the Graphic Arts Industry, Inc.

NE of the most significant events which took place in the history of our industry's educational program was the formation in 1951 of the Education Council of the Graphic Arts Industry. Major objectives of the Council were to serve as a coordinating body for the many local and national letterpress and litho trade groups conducting educational programs and to provide, at the national level, the leadership, guidance, and services to weld these myriad activities into the over-all pattern of a graphic arts education system. Initial funds for establishing the Council came from several of the major national printing trade groups plus an \$18,000 grant from the National Graphic Arts Exposition to be used in a rotating publications fund. Since 1951 the membership of the Education Council, with a minimum dues structure of \$100 a year, has grown to include many national and local trade groups as well as individual printing companies.

Council's Accomplishments

The Council has accomplished much in the past four years. It has embarked on a program designed to provide a comprehensive and integrated system of graphic arts education, starting in the junior high schools and going on through senior and vocational high schools, technical institutes, teacher training colleges, and other institutions of higher learning, as well as in-plant training programs and those specialized edu-



Samuel M. Burt

cational programs conducted by local and national printing trade groups. In conjunction with Printing Industry of Cleveland, it has issued a beautifully-printed, well-written brochure for use in interesting young people to choose the graphic arts as a career.

In conjunction with the National Safety Council, a complete and authoritative "Safety Manual for the Graphic Arts Industry" has been published for use in safety programs of printing plants and school printing shops. And in cooperation with the International Graphic Arts Education Association, the 35-year old professional organization of printing teachers, the Council has published a report titled, "A Survey of Graphic Arts Education in Schools and Colleges of the United States". This report not only presents the picture of graphic arts education in school programs, but contains invaluable statistical information which will guide all those interested in improving school programs for many years to come.

Graphic Arts Reports

The Council has also released numerous other reports in the field of graphic arts education; e.g., a list of texts for use in the related training programs for apprentices, a list of Master's theses and Ph.D. dissertations on graphic arts education problems, and a list of scholarships offered by and for the graphic arts industry in institutions of higher learning. All these reports are "firsts" in their respective fields and are of tremendous importance to the development of our industry's educational movement.

The Council now is engaged in preparing a text for use in employe in-plant training programs, a text for vocational guidance counselors concerning the graphic arts industry, and a text for use in introductory graphic arts classes in junior and senior high schools. The Council also is engaged in a program to encourage and assist in the formation of local industry education advisory committees, and is preparing a manual of operations for local graphic arts industry education advisory committees.

In connection with the safety education program, a set of pressroom safety posters has been issued, and "in the works" are a "Study Guide for the Safety Manual of the Graphic Arts Industry" and an "Instructor's Guide" for this manual. These guides will make it possible to use the manual for in-plant training programs on safety to be conducted by supervisors and foremen in individual plants.

Posters on Industry

In connection with its program to interest qualified young people in choosing the graphic arts industry as their vocation and career, the Council has arranged with Rochester Institute of Technology to produce and distribute to schools, free of charge, posters concerning the opportunities in the printing industry. The Council also is considering production of a film stressing the vocational and career opportunities of the printing industry.

When the Education Council was formed it undertook, as a continuing responsibility, financial support of the printing teachers' organization, the International Graphic Arts Education Association.

IGAEA is the only group of teachers associated with a specific industry. Secondly it is unique in that it includes in its membership printing teachers and supervisors from every level of our educational system—from junior high schools on up through colleges and universities. Now over 35 years old, this Association has been the connecting link between the graphic arts industry and the schools, and has provided much of the inspiration and guidance for many of the local and national printing trade group educational programs.

IGAEA, in addition to devoting its energies to improving graphic arts instruction and training in schools, sponsors a number of youth activities designed to arouse greater interest on the part of young people in the products and processes of our industry, and, incidentally, in the job opportunities of our industry.

Regional Meetings

The teachers association holds numerous regional meetings which bring printing teachers and printers together to discuss educational problems, and annually conducts a conference on printing education. The

1955 Conference was held in July at Carnegie Institute of Technology (see *ml* feature, p. 43).

This conference included representatives of a number of national printing trade groups.

Although the Education Council is providing much of the stimulus and leadership to our industry in the development of its educational program, a number of national printing organizations are carrying on important educational programs in their special spheres of interest. Such

Here's How YOU Can Help Solve the Graphic Arts Manpower Problem



An Education Council folder

groups as the Lithographic Technical Foundation, the Lithographers National Association, the American Paper and Pulp Association, the National Association of Printing Ink Makers, Printing Industry of America and the International Club of Printing House Craftsmen all have their own educational programs, and also contribute to the total program of the graphic arts industry. Many local trade groups, particularly affiliated organizations such as Printing Industry of America, Craftsmen's Clubs, and printing teacher's associations. are working together at the local level to develop new or to improve existing graphic arts education and training programs. As a result of such cooperative action; e.g., the Dayton printing industry and the Los Angeles printing industry have succeeded in establishing full-time college level programs for the industry in local colleges. Other fine examples of what the printing industry is doing at the local level in the way of meeting its educational and training needs are found in such cities as Milwaukee, New York, Philadelphia, Nashville, New Orleans, and others.

Help for Advisory Groups

In many instances, in the development of these local graphic arts education programs, the Education Council is being called upon for guidance and assistance in formation of industry-education advisory committees, recommended courses of study in the various types of schools, etc. But the ever-increasing demands on the Education Council for its services, by local as well as national graphic arts industry groups, makes even more apparent the tremendous amount of work still to be done before the industry can feel satisfied that it has, in fact, an effective educational system. We still need more up-to-date textbooks and instructional material for our school and in-plant training programs; we need better selection techniques for students entering vocational training in the schools and entering employment in our plants; we need to rehabilitate and add modern equipment in the school graphic arts and print shops: we need more trained teachers in our schools; and, most important, we need more industry people actively participating in the educational programs of their local and national printing trade associations and the Education Council of the Graphic Arts Industry. However, by the very fact that the Education Council stands ready to assist and guide any printer or printing trade group in finding the solution to their particular educational and training problem, as well as by the fact that the Council is planning and developing a nationally-integrated, comprehensive, coordinated system of education for the graphic arts industry, we can feel assured and heartened that the industry's manpower problems will be solved.★

Kodak





 $E_{\it verybody's\ talking\ about}$

"Bradshaw's Billions," the new movie
you're invited to see





...at the

Lithographers' Convention

and be sure to visit the KODAK EXHIBIT

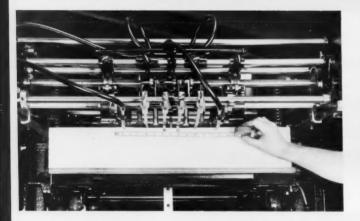
Booth 37-38,

Hotel Statler, Cleveland, Ohio

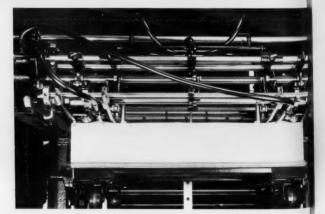
Sepiember 21 through 24



Harris 23 x 30" single-color offset pres



Center Separation is ideal for fast-on, fast-off work in small sheet sizes. On the $17\frac{1}{2} \times 22\frac{1}{2}$ " and 23×30 " Harris presses, the 14" setup shown here is used ordinarily for run-of-the-hook jobs. In addition, these models let the pressman switch quickly to corner-comber separation for hard-to-run stocks.



Harris Corner Combers roll corners of sheet into arcs, thus breaking the pile edge seal. Between five and fifteen sheets are affected by the combing action, so that each sheet actually separated from the one beneath it that many times before it becomes the top sheet, ready for feeding.

Halfway through the pile and not a single trip-off

Take a look at a Harris feeder at work. Watch how cleanly it peels one sheet at a time off the top of the pile. Notice how each sheet is forwarded squarely to the feed table. Above all, look at the steady stream of sheets flowing through the press.

With the Harris feeder, the pressman can change quickly from one kind of stock to another. He has no fussy adjustments to make. And he can feed an unusually wide variety of stocks.

What makes the Harris feeder so versatile and so positive? One thing is the Harris automatic pile. Another is Harris stream feed. Still another is the Harris system of sheet separation.

Harris recognizes two basic methods for separating the sheets—center separation and corner-comber separation. Center separation is excellent for fast-on, fast-off work where the sheet size is small and the stock is not hard to handle. Corner combers are superior for larger sheet sizes, and for difficult stocks.

With these facts in mind, Harris engineers use center separation on presses up to $23 \times 30''$. In addition, the $17\frac{1}{2} \times 22\frac{1}{2}''$ and $23 \times 30''$ models are also equipped with Harris corner combers for feeding difficult stocks. This combination lets the pressman select center separation, or corner combers, or both together, giving him the most versatile sheet separation in the business.

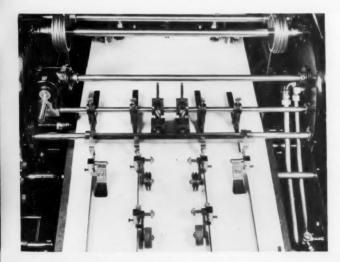
On presses over 23 x 30", Harris uses corner-comber separation exclusively. Years of experience have proved that Harris corner separation with combers is the most positive system for separating larger sized sheets. What's more, it will handle a wider range of stock than any other method.

When you compare offset presses, be sure you have the full story on Harris feeders and the way they improve printing profits. Ask your Harris-Seybold representative, or write Harris-Seybold Company, 4510 East 71st Street, Cleveland 5, Ohio.

HARRIS-SEYBOLD COMPANY

fine graphic arts equipment . . . for everybody's profit

Harris Division • Seybold Division • Chemical Division • Special Products Division • The Cottrell Company • Macey Company • Harris-Seybold (Canada), Limited



Harris Stream Feed controls the stock from feeder pile to registering mechanism. Since the underlapping sheets travel down the feed table at about one-fourth press speed, there's no nicking of gripper edge of sheet, no bouncing away from front guides, plenty of time for fine register on each and every sheet.

eet into

d fifteer

sheet is

ny time

Harris builds a full line of offset presses

... all have versatile, positive Harris feeders

PRESS SIZE	0	NUMBER OF	COLOR UNITS	(5)
14 1/2 x 20 1/2" *	W			
171/2 × 221/2"++	#			
23 x 30"**	華			
23 x 36"	M	Tild		
31 x 43"		711		
36 x 48"	The	711		
43 x 59"	76		7	71111
51 x 73"	The	711		711111
52½×77"	The	THE		Jim

- * 14 1/2 x 20 1/2" has center separation at front edge.
- ** 171/2 x 221/2" and 23 x 30" have both center separation



When thinking of Progress — think of Wagner!

WAGNER LITHO MACHINERY Metal Decorating Machinery Harborside Terminal, Unit 3, 34 Exchange Place, Jersey City, N. J. WAGNER LITHO MACHINERY Particular Partic



Inland Steel Decorates Drums up to 65 gal.

By Joseph C. Moore

New York

TO EXTEND the principles of modern packaging design to steel drums, and to supply lithographed containers in a complete range of sizes, Inland Steel Container Co., Chicago, has installed a lithographing line which will decorate sheets used for drums ranging in capacity to 65 gallons. The company says it is the only firm capable of lithographing drums of 65 gal. capacity, although some other decorators can handle drums up to 55 gal.

It makes small pails used for paint, food or oil, up through full size drums.

The new lithographing line decorates 15, 30, 55 and 65 gal. open head and tight head drums and includes the world's largest sheet-metal lithographing press. Existing standard size lines decorate sheets for 3, $3\frac{1}{2}$, 5, 10, 14 and 16 gal. containers.

Advantages offered by the new facilities are:

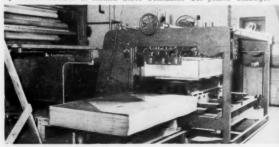
- Lithographing rather than stenciling or printing allows practically the entire surface of the drum to be used for postertype design. Formerly only the areas between the rolling hoops were used.
- It is now possible to design a whole family of containers from very small cans to the largest drum having the same family identity.
- Specially prepared protective and sanitary lacquers can be used to line drums and enable their use for products which are corrosive to steel or which become contaminated by contact with uncoated steel drum interior.
- 4. Pinholes in protective coating as experienced in spray-coat-

ing are eliminated in roller coating, one of the functions of this new line.

Inland, in lithographing metal containers, coats the metal in flat sheet form with paint, then lithographs with the desired design, and later forms into drums. Instead of having separate baking ovens and decorating equipment for each function, Inland's new line performs both coating and lithographing operations. Approximately 4200 steel sheets -50" x 77" and up to 14 gauge in thickness - can be decorated in an hour. Coating and lithographing equipment is arranged in tandem, in line with a baking or drying oven. During coating operations the lithographing equipment does not operate and during lithographing operations the coating equipment is idle, except when it is desirable to cost on top of lithographing without

Sheets are fed automatically to large metal decorating press by Dexter Feeder at Inland Steel Container Co. plant, Chicago.

Lithographed sheets come from press on way to ovens. Both lithced and coated sheets are baked in same oven at the plant.

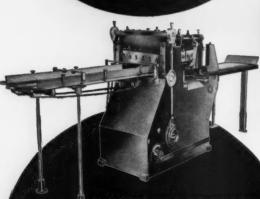






Folding, Stitching, Trimming... for a Profit!

FOLDING is the first step in achieving profits from pamphlets . . . and Cleveland Folders, available in a wide range of sizes, are the standard of the industry. Precision-built, of top quality materials and workmanship, every Cleveland is designed for many years of high-quality, high-speed production.



Automatic 3-knife Trimmer not only increases profits but saves floor space and handling expense. Untrimmed books from the Christensen Gang Stitcher are automatically conveyed to the McCain Trimmer where 3 sides are trimmed, and finished books delivered ready for wrapping or packing. Books can be trimmed at speeds up to 7500 per hour. Attachments are available for cutting apart books stitched two-up or with bleed trim.



GATHERING & STITCHING of folded signatures is the next step to bindery profits. The Christensen Gang Stitcher, in the model best suited to your needs, will gather and saddle stitch as fast as operators can feed it...up to 7500 books or gangs per hour with McCain Automatic Feeders
... with unvarying accuracy and reliability.

ILLUSTRATED CIRCULARS ARE AVAILABLE
FOR ANY OF THE ABOVE MACHINES

DEXTER FOLDER COMPANY

General Sales Office

330 West 42nd Street New York 36, N. Y.



Sheet travels through oven on edge, is placed flat as it leaves. Sheet is automatically turned over when needed.

Dexter Turnover turns sheets as they leave oven, when required. Remaining operations require them to be right side up.

first baking the ink. Coating equipment is located at the entrance of the oven and the lithographing press is behind the coating machine. When the lithograph press is in operation the sheet passes directly through the coating equipment and into the oven. When the coater is in operation, the lithograph-press discharge conveyor is raised to provide aisle space between the lithograph and coating equipment.

Handling the Metal

One of the major considerations in planning for the lithographing of large size sheet was the handling of the metal. Each individual sheet weighs from 35 to 50 pounds and although handling of stacks of sheet metal was no longer a problem, the feeding and removal of the individual sheets to and from coating and lithographing equipment was a new condition to be solved. The weight of the sheets, plus the high cost of manual handling, made a mechanical solution imperative.

The next logical step was the consideration of mechanical feeders such as are available for handling tin plate. The tin plate feeders were developed by Dexter Folder Co.

Experience in building a few prior heavy-duty sheet metal machines helped Dexter design and build two "feeders", one for the coating machine and one for the lithographing press. Also specially designed and constructed by Dexter for this operation were a "piler", a "turnover" and special conveyors for carrying the sheet from one operation to another.

Piles of sheet metal are brought from storage or from preceding processing operations to the Dexter Feeders by heavy-duty fork trucks. Because of the tremendous weight (to 10,000 pounds) of these piles, all equipment used in connection with them is of extremely rugged construction. As piles of sheet are brought to the feeders, they are deposited on special roller conveyors leading to the feeders.

Once delivered to the platform of the feeder, the pile is elevated to the feeding mechanisms and sheets are fed automatically one at a time onto the sheet conveyor which carries them into the press or coater. The entire installation is enclosed in a canvas, tent-like covering to prevent drafts from causing uneven drying on the lithographing press. Because of the heavy demand made upon the feeders, construction varies from that of small similar units for handling tin plate. For example, these machines elevate by means of a hydraulic system whereas the smaller types utilize a mechanical ratchet system.

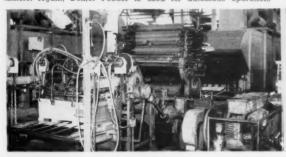
In feeding sheets, flexible vacuum cups, magnets, and feed rollers play a major part. One of the principal difficulties which a feeder must overcome is the tendency for more than one sheet to be fed at a time. To prevent this occurrence and to help lift the top sheet off the stack, Dexter utilizes permanent horseshoe magnets. The actual lifting and moving forward of the sheets is accomplished by means of ten vacuum cups.

Conveyor Carries Sheets

The rollers deliver to a conveyor which carries the sheets directly to the lithographing or coating equipment. As in standard tin plate lithographing operations, sheet metal travels through the oven on edge rather than on its side. This, of course, enables much more work to be processed in a given oven length. As sheets approach the oven they

(Continued on Page 108)

Lines like this are used to process sheets for smaller containers. Again, Dexier Feeder is used for automatic operation.



Manual method of feeding to litho press is shown here. Sheets are mechanically stacked after they have been baked in the oven.



Get Sparkling Brilliance with Dayco Gold Seal

Press Foremen and Sales Managers depend on Dayco Gold Seal Offset Blankets for

You, too, will benefit by a new perfection in brilliant reproduction with the Dayco Gold Seal Offset Blanket. For every Dayco has the inherent ability to faithfully reproduce on every sheet, first to last, all the copy of the finest craftmanship. Moreover, you can achieve this higher quality lithography at a lower cost per run . . . in black and white or color, regardless of size of run or speed of press!

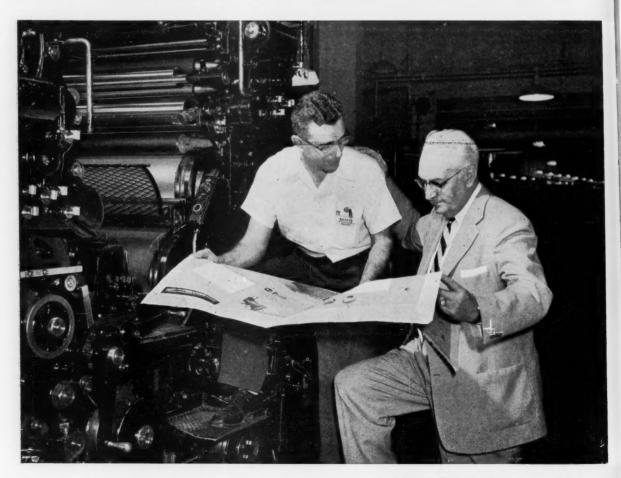
There are many exclusive reasons which explain the outstanding performance, economy and popularity of the amazing Dayco Gold Seal Offset Blanket. It has a smoother and more resilient surface, specially processed from an exclusive synthetic rubber, that transfers the most intricate

images with utmost fidelity. In addition, that resiliency results in better recovery after "blanket mash" for consistent, highest quality impressions.

Perfect color register is assured—forget about creep or crawl because stretch is scientifically controlled to less than 2%.

And there's no doubt about the customer satisfaction you'll receive from the beauty of halftones, solids, line drawings or the finest type perfectly reproduced in sparkling clarity by the Dayco Gold Seal Blanket.

The Dayco Gold Seal Offset Blanket gives you extra savings through longer, unfailing service. Its long-wearing



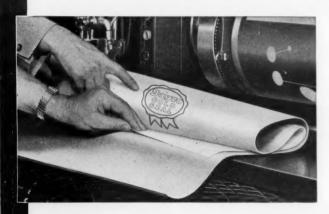
for Your Longest Run... Offset Blankets

more saleable runs of perfect reproduction.

face stays uniform always-never develops high or low spots-even in the longest runs. What's more, it won't swell, emboss or deboss, nor will it peel or split from the fabric base. And you can count on the trouble-free Dayco Gold Seal to clean easily.

Whether it's the newest, fast-dry, quick-set, high-gloss, kromekote inks or any other inks, the Dayco Gold Seal Offset Blanket will pick up and deposit them with unerring accuracy on regular offset, vellum, kromekote or other coated stocks.

Whether you're interested in finer press performance or in lithographic perfection to up your sales-you'll want to know more about the Dayco Gold Seal. Your Dayco representative can "fill you in"-or you may mail the coupon for additional information, Dayton Rubber Co., Dayco Div., Dept. 134, Dayton 1, Ohio.



© D.R. 1955

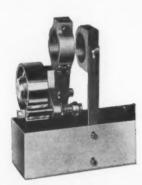


West Coast Distributor, Tillicum Rubber Co., Lacey, Wash.



The Dayco Fountain Divider

Perfect for split color and all other fountain uses, completely leak proof, easy to clean. Gives complete control at fountain without strain on ratchet. Easily adjusted, the Dayco Fountain Divider always holds its shape. Fully Guaranteed!



The Dayco Color Separator

Imagine! Several colors one time through the press! That's what you can do with the new Dayco Color Separator-and without cutting your rollers. It's the only mechanical color separator made. Gives splits as narrow as 1½" with no color mixing. Saves roller cost, make-ready, press time.

DAY	TON	RUBBER	CO.

Dayco Division, Dept. 134, Dayton 1, Ohio

Tell me more! Send additional information about:

- Dayco Gold Seal Offset Blanket
- ☐ Dayco Roller
- Dayco Fountain Divider
- ☐ Dayco Color Separator

Name

City_____Zone__State__

Extras that Pay in LITHO SALES

By P. R. Russell

Parthenon Press, Nashville

THERE are a lot of little "extras" that pay off in a big way in dealing with buyers of printing, particularly in the commercial field. These come at little or no additional cost to the printer and when these extras somehow help to solve some of the customer's own problems, their value is greatly increased.

The dictionary defines "extra" as something "beyond what is usual, expected, or necessary; additional." The man you are trying to sell, if a merchant, moves most of his goods across the counter on the strength of offering his customers something extra for their money, which makes him all the more vulnerable to your use of the same method.

Clever Packaging

Remember when you saw the first snapshots come back from the film developer neatly bound together and with a cover forming a little booklet? You thought it a clever idea and a splendid business gesture, a great improvement over simply sending the pictures back loose in an envelope.

With your mind still on the film package, how are you, as a printer, sending out proofs to your customers? Instead of using cheap, m. f. scrap, how about really dressing them up as a tempting little "extra"? Make a charge for it, if you must, but prove them carefully on good stock—enamel for halftones, text finish if type or

line cuts and type. Be sure that margins are even and that the form is properly positioned on the sheet. A printer, who was also a trained commercial artist, insisted that every set of proofs go out looking as neat and impressive as the usual art sketch sent out for a customer's approval. He believed that there was the same reason for doing it.

Instead, many printers send out any sort of proofs so long as they are legible, with a printed sticker attached which states apologetically, "This is only a rough proof, etc." It is usually plenty rough. Just when a customer would like to have some idea about how the finished product is going to look, here comes the proofs for which the printer himself feels that he must apologize. If he is already uncertain about the possible effectiveness of his copy, this is certainly not going to help. On the other hand, a good set of proofs, carefully prepared may assure him that the copy is even better than he thought it was.

Good Proofs Help

A good, neat, clean proof, which makes the job altogether attractive, discourages changes and encourages an immediate O.K. If the proof does not show up the job as it will appear, most customers will demand to see a press proof. As we all know, making a press proof and then holding the press until the customer can be con-

tacted is an expense, and one that the customer will balk at paying.

Ever hear questions like these: What's my job going to look like? Would black ink look better, or blue? These can all be answered by proofing the job in the ink and on the stock to be used. Proof in both black ink and blue, if there is doubt about which should be used. This takes time and is an expense. You will probably have to make a charge for it, but it will pay. It may avoid a rejection of an unsatisfactory finished product or, if he accepts, the even worse alternate of a customer thoroughly dissatisfied with your work.

Advertising agencies have long since determined that even the color of ink may ultimately determine the effectiveness of a mailing piece, and a printed mailing piece that really sells is the printer's best booster. A manufacturer-distributor declared that it established its own private printing plant, solely because it had been unable to find a commercial printer who was willing to work closely enough with it in the production of the company's advertising matter. This shop is still going strong and producing a big volume of business.

Deliver When Promised

"Job delivered when promised." If you can put that into your bid for business and make it stand up, it is one of the best "extras" that you can offer, but the shop with no definite system of scheduling work can seldom give a dependable promise. Some system of scheduling is as important as the number and kind of presses that you have on the floor.

The production department should know when a job can be delivered by a normal schedule. There are materials to obtain on most jobs and delivery depends, of course, on being able to get these materials. It is impossible for a printer to carry an absolutely complete stock of materials. Your local paper house never attempts to do it.

Have someone in the production department who knows how to make a promise that can be kept. And every promise made calls for a follow-up system that will insure its fulfilment. This system may consist of a list in the hands of someone in the production department who will make as frequent checks on the progress of the job as are necessary, or a printed sticker or slip may be attached to the job instructor reminding those handling it of the promised delivery date.

With many jobs, especially folders and advertising pieces, a correct count is essential. To insure this count, band the leaflets or similar items in 50's or 100's with a narrow strip, as an added touch. An experienced bindery worker can band around 2500 in a six-minute period and the added cost will not be great. Banded items can then be wrapped or simply packed in a cardboard carton for delivery. The banding, of course, facilitates the wrapping or packing.

Estimated counts are satisfactory in some cases, but if you ever have a customer complain of being "shorted" on a job, chances are that the "estimating" has gone wrong. You wrapped the job in estimated packages of 250 or 500, say, and the customer accepted your count and distributed the leaflets on that basis. You actually had 275 or 525 to a package and an apparent shortage resulted.

Counting and Banding

Actually counting and banding eliminates the possibility of such a complaint. At a bindery hourly cost of \$3, folders or leaflets, or small booklets, can be counted and banded in 50's, 100's or 250's at a cost of about 57 cents per thousand, with flat sheets coming a little cheaper. Pass on this cost if you can't absorb it. It is one of your best customer-pleasing extras.

It always pays to furnish the customer with a copy of your delivery slip so that he can check what you deliver him. This should indicate number of packages, quantity in each package and a description of the job. At the time of the delivery get the original signed by whomever receives the job for the customer. This safeguards you in the event the packages are misplaced and the customer calls about it. Even the name of a porter on your slip is sufficient. The customer can

soon find it with this much help.

Let customer have an invoice for a job no later than when he wants it! A very large plant doing many jobs will furnish the customer an invoice on nearly every completed job within 10 days. There are jobs that require a longer time to get through accounting to the billing stage, but they are few. A cost system that cannot produce an invoice on almost any job within that time needs attention itself.

There is the case of one professional man who changed printers four times before he found one who could and would bill a job to his satisfaction, and he is actually paying the fifth printer more for his work than he paid any one of the other four printers before him.

Satistied Customers

One successful printer, who believes in offering something "extra" to his prospective customer list and to his present customers, found it profitable to make a close study of satisfied customers. He had been accustomed to spending all the time necessary to investigate complaints when he failed to please and when a complimentary letter came in he showed it to a few in the office and in the plant, then put it in the file basket.

Now he has another slant on complimentary letters. He follows up on them and finds out why the customer is pleased enough to write. That way he gets onto "extras" that can be used on other customers and prospects.

One he likes to tell concerns the mail-piece he sent out with a real fishhook attached to it. It seems that at least one to whom the piece was sent was a fisherman who put the hook in his fishing kit. Later he caught a nice bass with it, believe it or not.

Another time he sent along a detailed drawing and a full description for building a backyard or camp barbecue pit. His biggest competitor, getting hold of one of the sketches, not only made use of it to build himself a pit, but wrote a hearty letter commending him on the cleverness of the idea as a customer good will builder.*

A Short Run 3-Color System

By Lester Goda, Jr.

Graphic Reproduction Sales Division, Eastman Kodak Co.

N CASES where only a few hundred or thousand color reproductions are required, the initial costs are so great that printing in color is usually out of the question for most customers. There exists, nevertheless, a very large potential market in which facsimile color reproduction is not required and for which pleasing color quality can be supplied at a cost much below that of conventional methods. Although capable of very pleasing color results, the short-run 3-color system is not designed to compete with present conventional color lithography. Instead the work which the Kodak Research Laboratories has done has been designed to find a means for filling the very large potential market - which can be thought of as upgrading black-andwhite work or supplying color printing to customers who have not purchased it before and who could not purchase conventional color lithography for their short-run requirements.

35mm Color Transparency Used

Although the present process is aimed primarily at filling this need, the fundamental principles may apply equally to other aspects of color printing. The system has been developed gradually in the Kodak Research Laboratories over a period of about five years. The equipment now in use was designed to produce a standard size print from a 35mm color transparency at the lowest possible cost and to enable us to study the many variables in the process.

At an early date it was decided that, if possible, printing should be done in three colors instead of the conventional four; also that in the interest of definition, a finer screen ... The author presented this paper at Research & Engineering Council's fifth annual meeting in Boston, May 12-13.

should be used than is used in commercial printing, and that all color correction should be done by photographic methods. The advantages of mechanizing register and making screen separation negatives directly from Kodachrome transparencies were also apparent.

Offset Chosen For Work

Inasmuch as 35mm Kodachrome film is widely used by professional and scientific workers who comprise a large part of the potential market, it was decided to work out a process based on reproductions from this type of original. In addition, the limiting of the type and size of the original, as well as the size of the final print, is desirable in order to obtain the highest standardization possible and hence the lowest possible cost.

Offset lithography was chosen as the printing medium because of the availability of low cost equipment such as the Davidson Duo Duplicator and the Model 1250 Multilith Duplicator. Other considerations, of course, include the ease of preparing the printing plate and the minimum amount of make-ready for the press required. Virtually all of the printing in the Kodak Research Laboratories has been done on a Model 1250 Multilith Duplicator which has been slightly modified. The inks which are used differ in hue from conventional process colors; also, they have been especially selected for their performance on the press.

The first step is to prepare a mask on a sheet of Kodak Pan masking film from the Kodachrome transparency which is held in a frame provided with register pins. The Kodak Pan masking film is first punched, using the Kodak Matrix film punch, and is placed on the register pins to position it for exposure through the Kodachrome transparency. The exposure is made through the support of the masking film to a ring-shaped light source so that the masked image is somewhat diffused. This contributes to the sharpness of the resulting reproduction. A simple box built for masking exposures is in effect a contact printing box with the annular ring of light of orange color in the center of the box. The exposure and development of the mask are such as to yield a silver density range approximately 40 percent of the density range of the Kodachrome transparency. The mask is recombined in register with the Kodachrome transparency at any time by mounting in the masking holder, using the register pins provided.

Special Camera Developed

A special camera or projector has been designed and built making it possible to prepare screen separation negatives directly from the masked Kodachrome original. Inasmuch as the light passes through a heavily masked Kodachrome transparency, color separation filters, and Kodak Gray Contact Screens, onto Kodalith Pan film, which is necessarily slow, a light source and optical system of unusual brilliance must be employed. An efficient condenser system images the filament in the objective lens. Evenness of illumination is, of

(Continued on Page 113)



3 dependable papers at low cost from Hammermill

WHIPPET BOND, Deeplake Index and Deeplake Post Card are three dependable papers of Hammermill manufacture. You can use them with confidence, even though they are low in cost. Thousands of printers use these papers to make their economy jobs look better.

1 Easy-feeding, fast-running Whippet Bond offers unusual brightness and outstanding strength characteristics. Where the job calls for a modestly priced sheet, as in business forms and sales literature, you'll do well to choose Whippet Bond. It's an excellent value in unwatermarked bond. White and six like-sided colors.

2 Need a uniform, low-cost index paper? Hammermill-made Deeplake Index in white and six colors will provide the results you want for filing cards, and for display cards and advertising folders. Inexpensive, yet surprisingly strong, it has a well-sized surface which takes erasures without scuffing.

3 For return mailing cards or for public utility bills, Deep-

lake Post Card is a strong, cream-white card stock that combines lively snap with low price.

All three of these big-value grades come in attractive, weather-tight packaging that preserves the paper's balanced moisture content for trouble-free pressroom operation. "Drop-front, shelf-service" cartons provide easy storage and handling.

And all three are available from your local Hammermill Agent. He'll fill your orders promptly. Call him soon. Hammermill Paper Company, East Lake Road, Erie 6, Pa.



Are You Using Atlantic

America's <u>Best Selling</u>
Genuinely Watermarked
#1 Sulphite Bond?



? WHY is a genuine watermark important?

It is important to printing quality. Solid ink areas or half-tones printed over a stamped "watermark" cause a mark showthrough. This does not happen with a genuine watermark. But, most important, a paper — to be genuinely watermarked — must be run much more slowly on the papermaking machines. The result — finer formation, stronger paper — a better sheet with better feel, snap and sparkle.

? WHY is Atlantic Bond called "The Printers' Paper"?

Because Atlantic Bond is made first for printability. The

greater, measureable bulk of Atlantic Bond means sharper impressions — smoother running — less make-ready time. This greater bulk — plus moisture controlled dimensional stability and micromatically accurate trimming — gives a paper that pleases both you and your customer.

? Are you now using Atlantic Bond?

There must be several reasons why Atlantic is first in sales in its own field — if you would like to see them for yourself just call your Eastern merchant for enough Atlantic Bond to run your own tests. We'll stand on the results.

Use



Atlantic Bond

MADE BY EASTERN CORPORATION, BANGOR, MAINE

PHOTOGRAPHIC

Clinic

By Herbert P. Paschel

Q: We often reproduce the same subject in several different sizes in four colors. Although we try to produce identical halftone positives, the printed results are never equal. Why is this? J.K.H., Tulsa, Oklahoma.

A: The difference noted can be attributed to several factors acting in unison. One of these is an inherent condition of the visual processes as a result of which a number of identical images (tone scale and color) but of different sizes will never appear the same visually. Scattering of the incident viewing light within the paper is another factor. The emergence of this scattered light in an area of a particular dot pattern plus the light reflected by the paper and the ink dots combine to produce a certain color. The scattering effect varies with dot distribution (screen ruling, dot size, etc.), and area.

Thus, as the size of the image varies, the cumulative effect of scattering varies also. This results in a physical difference in the light reaching the observer. A host of other factors also influence the condition, but the aforementioned are the principal causes. For these and other reasons, a certain amount of manual correction always will be necessary in color reproduction.

Q: Are panchromatic plates or films available with built-in color correction layers? H.J.L., Los Angeles.

A: If you are thinking of emulsion systems for tri-color separation negatives with integral, automatic color correction as, for example, the masking layer in Ektacolor negative film, I do not know of any such material commercially available. It is not un-

Camera troubles? Why not drop a note to Mr. Paschel, c/o Modern Lithography, Box 31, Caldwell, N. J. He'll be glad to draw on his years of experience as a consultant to answer your question.

reasonable to suppose that materials will be developed which would provide the type of correction now accomplished by combining masks with the separation negatives. A survey of trends revealed by patent disclosures and the work being done in various laboratories indicates that the day may not be far off when self-correcting separation materials will be placed on the market.*

Q: We have to reproduce a collection of old photographs from the original negatives which are badly scratched. Can we do anything to keep the scratches from showing in the prints? H.T.S., New York, N. Y.

A: If the scratches are extremely deep so that most, if not all, of the silver constituting the image is gouged out, then, of course, laborious retouching is the only answer. Surface scratches which show up on a print as white because of the prismatic action of the scratches can be eliminated or minimized by a variety of treatments. In view of the antiquity of the negatives and the fact that they cannot be replaced, it would be wise to avoid methods that require wetting the emulsion. Such methods as swelling the emulsion and then letting it dry often eliminate scratches by the shrinking and rearrangement of the emulsion surface. However, with old negatives, wetting the emulsion could give rise to unwanted chemical reactions - stains, frilling, etc., all of which could make matters worse. Instead, use the principle of applying a substance to the surface of the negatives which has a reference index close to that of the film base or the gelatin. This has the effect of reducing the scatter of light by the walls of the scratches. There are a number of proprietary scratch eliminators available many of which contain silicone or silicone derivatives. This miracle chemical has recently become popular as an ingredient of many auto and furniture polishes. Such prepared solutions are available from most camera stores since scratches are an acute problem in enlarging from 35mm negatives. In using these proprietary solutions, follow the directions furnished by the manufacturer of the particular brand you buy. But first clean both sides of the negatives with carbon tetrachloride or some similar non-aqueous solvent. Carbon tetrachloride fumes are toxic, so be sure to perform this operation with adequate ventilation.

In the absence of the prepared scratch eliminators you can try any one of the following. Apply a thin film of white petroleum jelly to the emulsion side of the negative. A film of glycerin also works well. Both of these are somewhat messy to use, but are not too difficult to handle if the prints are made by projection. For

(Continued on Page 109)



WESTON BOND

25% RAG CONTENT

Life can be beautiful . . . free of headaches and heartaches if only you remember what customer-pleasing results you get by running WESTON BOND, 25% Rag Content.

Now with its new, brighter white, WESTON BOND adds brilliance and clarity to letterheads, forms and printed pieces. Medium cockle finish is just right . . . sheets zip through the press regular as clockwork. Press production stays high; downtime stays low when you

stick to WESTON BOND.

With a complete range of sizes and weights it's easy to match WESTON BOND to the job need. In five colors as well as the *new*, *brighter white*. Also available: Weston Opaque Bond, Weston Bond Litho Finish. Envelopes to match.

Sure you'll be wise to stock and recommend WESTON BOND — made by people who know paper and who specialize in quality.



BYRON WESTON COMPANY

Makers of Fine Papers for Business Records Since 1863

DALTON, MASSACHUSETTS



In writing about the multitude of graphic arts conventions that fill nearly every month of the year, it is always interesting to see how far lithography has come since its early years. Old timers in the business tell about the unlabeled bottles of unknown contents, of closely kept secret formulas and procedures and of deep-seated antipathy toward all others in the industry.

Things, indeed, have come a long way. Nowadays the accent is on cooperation—on telling the other fellow how he can profit from your experience in running a job a certain way, in preparing plates, mixing chemicals, etc. It almost seems sometimes that lithographers try to outdo one another in providing information on operating procedures.

Those in attendance at the recent Litho raphers National Association Convention noted this generous exchange of ideas, and the program for the forthcoming meeting of the National Association of Photo-Lithographers indicates that this spirit of cooperation and trust will be in the forefront. And the International Association of Printing House Craftsmen, meeting as you read this in Cincinnati, even uses the words "Share Your Knowledge," as one of its slogans.

Wonder what those dignified and mysterious old gentlemen back in the "stone age" would have to say about all this mutual aid?

ml

Miehle Printing Press & Mfg. Co. recently received the 1955 award of the Chicago Federated Advertising Club for the best single direct mail piece covering both industrial and consumer campaigns. The winning six-page folder is particularly interesting from a production standpoint because it was printed by letterpress on one side and by offset on the other side. Taking advantage of the gatefold effect of a six-page folder, two identical reproductions of the same 4-color process subject appear side-by-side; one offset and the other letterpress.

The folder, entitled "It's Up To You," illustrates Miehle offset and letterpress equipment and tells of Miehle's belief that both processes will continue to have a place in the graphic arts industry. Typography and printing, both letterpress and offset, were by Runkle-Thompson-Kovats, Inc. Photo engravings were by Jahn & Ollier Engraving Company and offset plates by Process Color Plate Company, Inc.

ml

Speaking of leaflets and booklets, Northwest Paper Co. has just completed production of a new edition of "Manufacture of Paper."

Both cover and inside pages are lithographed on Northwest's Velopaque cover and Velopaque text respectively.

ml

When an industry appoints public relations counselors and announces a long range public relations program we know it has "arrived" as big business. That's exactly what has happened to the Point-of-Purchase advertising industry.

Hugh Swofford & Associates, Inc., New York, have been appointed public relations counsel to handle a new program for P.O.P., Norton B. Jackson, executive director of P.O.P. Advertising Institute, told the press recently. The industry is reported to be running along at an annual \$800 million clip.

Research on effective displays in specific industries such as tobacco, drug and foods, etc. should provide valuable information for publication in the fields of interest. Other facets of the program will include a monthly Fact Report outlining successful case histories (and a few unsuccessful ones too, we trust, just so we can learn by others' mistakes); a planned series of talks to advertising clubs; special field research projects; films; publication of books; and publicizing of various Forums and the annual POPAI Symposium and Exhibit.

Ross Runkle (1.) of Runkle - Thompson - Kovats, Inc., Chicago, and Carlton Mellick, vice - president of Miehle Printing Press and Mfg. Co. with Chicago Federated Advertising Award made to Miehle for direct mail job printed by R.T.K.



Announcing... NEW M-J

DRY-STIK
... the label paper line
of self-adhesives

- Just peel off protective backing and smooth it on.
- Quick tack. No drying time. Sticks to any hard, smooth surface. Won't slip out of position.
- Resists heat, cold, time. Removes easily. No scratching or scraping.

M-J
DRY-STIK
(Just smooth it on)

Just smooth it on

McLaurin-Jones now offers you new M-J DRY-STIK self-adhesive on its line of label papers. This means you can increase your label business. Why? Because you can offer your label and point-of-sale customers jobs with this type of adhesive on established label printing surfaces.

M-J DRY-STIK gives you easier printing, too, because you'll be printing on a proven label paper line. No new production problems. THIS self-adhesive stock has been run by offset, letterpress and silk screen.

As the country's oldest manufacturer of Gummed, Heat Seal, and Specialty Label Papers, we are proud to announce the addition of this new M-J DRY-STIK line. Get full information and samples of new M-J DRY-STIK from your McLaurin-Jones fine paper merchant. Or write us direct.

McLAURIN-JONES COMPANY
HEADQUARTERS: BROOKFIELD, MASSACHUSETTS
Offices: New York, Chicago, Cincinnati, Los Angeles
Mills: Brookfield and Ware, Mass., Homer, La.

McLAURIN-JONES LABEL PAPERS



Abstracts of Current Literature in the Graphic Arts

These abstracts of important current articles, patents, and books are compiled as a service of the Lithographic Technical Foundation, Inc. They represent statements made by the authors and do not express the opinions of the abstractors or of the LTE.

Since some of the abstracts are from abstract journals, LTF cannot furnish photostats of all of the original articles. If the title is marked with an asterisk, LTF has no further information than that contained in the abstract itself. Inquiries about these items should be sent direct to the source that is named. If you want copies of U. S. Patents, write direct to the Commission of Patents, Washington 25, D. C. Send twenty-five cents for each patent desired. Make checks or money orders payable to "Treasurer of the U. S."

If the title of the abstract is not marked with an asterisk, LTF can supply photostats of the original article. The charge is sixty cents per page plus six cents postage. Orders from companies or individuals who are not members of LTF cannot be filled until payment is received. Orders with payment enclosed receive immediate attention.

Foreign patents may be obtained as phtoostats from the Library of Congress, Washington, D. C.

LTF also has mimeographed lists of (1) "Periodicals Abstracted by the Research Department" and (2) "Books of Interest to Lithographers." These are available for ten cents each in coin or U. S. stamps. Lithographic Technical Foundation, 1800 S. Prairie Ave., Chicago 16, Ill.

Photography, Tone and Color Correction

Color Separation. Frank Preucil. Graphic Arts Monthly 27, No. 5, May, 1955, pages 66, 68, 70 and 73 (4 pages). After a brief history of color separation methods the author explains the subtractive color process. The functions of the three process inks are examined and the reasons for using the various filters for color separation are given.

*Basis for Evaluating the Photo-MECHANICAL COLOR CORRECTOR. Walter Heinrich. Papier und Druck, January, 1955, pages 8-10; abstract from Deutschen Gesellschaft für Forschung im graphischen Gewerbe, January, 1955. The use of the photomechanical correction process may occur: after a careful evaluation of masking and color separation methods, after gathering data about the process, by having on hand a color control chart with which the work may be compared by eye and through calculated values following the control chart. The last method gives the safest results. The procedure is distinguished in single and two-stage correctors. Papier und Druck is published by Verlag "Die Wirtschaft," Berlin, East Germany.

Principles of a New Masking System. H. P. Paschel. *Gravure* 1, No. 4, April, 1955, pages 40-41 (2 pages). The Agfa Kom-Bi-Film method of color correcting color transparencies is described. Three multilayer films are used. One has a blue-sensitive layer which color develops into a yellow image, and a red-

sensitive layer which produces a cyan image. The second film has blue and red sensitive layers which provide the yellow and magenta masking images. The third film is green and red sensitive and develops into magenta and cyan images.

Photo-Typesetting vs. Repro. Pulls. Fred Worth. Modern Lithographer and Offset Printer 50, No. 11, November, 1954, pages 21-22 (2 pages). One of the claims for photographic typesetting is that it gives such sharp results. While this may be true for the best work, unfortunately all work done by this method does not come up to this standard. Some of the books printed by this method are not as good as one might expect. Photographing first class impressions, taken on art paper, will give good results. Too often one finds that lithographers do not know what a good impression is.

GETTING THE MOST FROM YOUR FLASH LAMP. R. L. Yinger. National Lithographer 62, No. 4, April, 1955, pages 42-45 (4 pages). Too often the flash lamp on the process camera is not given enough thought by the designer and the photographer. Uneven tints or halftone negatives with fall-off of shadow dots in certain areas may be attributed to a flash lamp which may be poorly designed, in poor condition, or improperly posi-tioned. The lamp should have uniform illumination over its entire face. It should be close to the lens and the face of the lamp should be parallel with the face of the lens. The center of the lamp and lens should coincide.

New Method for Halftones. Modern Lithography 23, No. 5, May, 1955, page 86C. A news items from Eastman Kodak reports that a halftone tint can be used with a continuous-tone negative to make halftone film positives or printing plates. The continuous-tone negative is placed emulsion down on the sensitive surface. The halftone tint is then placed over the negative. Depending on the contrast desired, the tint can be placed emulsion down or up. The contrast of the final print will depend on the screen ruling, percent tint and spacing between tint and the negative.

*PHOTOGRAPHIC PROCESSES USING PRE-SCREENED MATERIAL. U.S. Patent 2,708,-626. J. A. C. Yule and R. E. Maurer (to Eastman Kodak). Official Gazette 694, No. 3, May 17, 1955, page 383. 1. The method of reproducing line work with a Clayden prescreened photographic sheet with dot corners Clayden desensitized and areas adjacent to the dot centers with substantially no desensitization, which comprises exposing the sheet uniformly to a high intensity short duration exposure of substantially the same order of duration and intensity as that used in prescreening the film whereby said adjacent areas are Clayden desensitized and the desensitization of said corners is reduced to provide substantially the same sensitivity in said areas and said corners, then exposing the sheet to said line work and developing the sheet.

BLOCKING OUT REVERSES. M. J. Monse. National Lithographer 62, No. 5, May, 1955, pages 38-39 (2 pages). The use of spread positives" or negatives to block out backgrounds on two-color lettering jobs is described. One method of making a spread positive is to place a few sheets of clear acetate between the negative, emulsion side up, and the unexposed film, emulsion side up. Another method is to rotate the light source over the sandwich. A third method is to rotate the sandwich in a printing frame with the light at an angle to the sandwich. Different type faces can be created by manipulation of these techniques.

Planographic Printing Processes

*Printing Surfaces. S. D. Warren Company. British Patent 692,387. Abridgement of Specifications XVI, 1955, pages 158-9. A planographic printing plate comprises a paper base having thereon a planographic printing surface layer comprising insoluble hydrophilic adhesive material and finely divided inert mineral pigment and having therein capillary interstices and pores containing the evaporation residue of an aqueous solution containing a water-soluble multivalent metal salt and the evaporation residue of an aqueous solution containing a water-soluble monovalent salt of the group consisting of the alkali metal and ammonium salts of acids capable of forming water soluble salts with the multivalent metal. The multivalent metals may be one of the group aluminum, chromium, iron, uranium and zirconium and the multivalent metal salt and monovalent salt may be salts of the aliphatic organic acids of the group formic acid and acetic acid. The solutions of the multivalent and monovalent salts may be applied successively in either order or together to the dried hydrophilic coating or may be incorporated in and applied with such coating. Specifications 633,746, 633,747 and 633, 796 are referred to.

*ETCHING; PRINTING SURFACES. British Patent 705,053. D. J. Black (to Coates Bros. and Co., Ltd.). Abridgement of Specifications XVI, 1955, page 76. A chromium-surfaced copper, brass or zinc plate or cylinder is etched through a developed photographic line or halftone resist with a first etching liquid which attacks the chromium but not the underlying metal and then with a second etching liquid which attacks the underlying metal but not the chromium. The result is, normally, an intaglio printing surface but if the underlying metal is only moderately deeply etched printing may be effected by lithographic means using the ink-refusing and water-accepting properties of chromium. For a chromium plated copper sheet the first etching liquid may be dilute hydrochloric acid which may be modified with glycerin and the second etching liquid dilute nitric acid or calcium, ferric or zinc nitrate and such may be used before or after removal of the photographic stencil. Specification 475,902 is referred to.

Paper and Ink

*A Molecular Approach to the PROBLEM OF VISCOELASTICITY. A. H. Nissan. Nature 175, No. 4453, March 5, 1955, page 424; Bulletin of the Institute of Paper Chemistry 25, No. 8, April 1955, page 638. The author proposes a theory whereby the stress in paper may be expressed as a power series function of a strain. Hypothesizing that the strain energy causes an increase in the hydrogen-bond potential, he is able to evaluate the coefficients of the power series spectroscopically. The coefficients so derived are in reasonable agreement with those found from rheological data. A more detailed treatment of the theory will be published elsewhere. One diagram and one reference. Nature is published by Macmillan and Co., Ltd., St. Martin's Street, London, W. C. 2, England.

THE EFFECT OF SOME MACHINE CHARACTERISTICS ON PAPER UNIFORMITY. J. Mardon, G. Gavelin and K. C. Logan. Pulp and Paper Magazine of Canada 56, No. 3, Convention issue, 1955, pages 275-297 (23 pages); Bulletin of the Institute Paper Chemistry 25, No. 8, April, 1955, pages 637-8. An objective evaluation of some machine characteristics which cause non-uniformity in paper is presented. Particular emphasis is placed on variations of basis weight, moisture, caliper, and the firmness of finished rolls, which are shown to be closely related. In the first part, the measurement of velocity and flow pattern in various parts of the headbox as determined by means of specially designed Pitot tubes is described. Similar measurements are also outlined for the jet efflux from the slice, and variations in the slice are correlated with design and operational features of the headbox and screens. In the second part, the effect of these flow variations is related to weight variations found with and across the grain of the finished paper as determined with the Betameter. These weight variations, which in turn affect the moisture and caliper, are studied in relation to paper-reel uniformity. A device for objectively evaluating this reel uniformity is described in the third part, and the experimental results are treated statistically to elucidate the relationships between weight, moisture, caliper, and reel hardness. Some operational features affecting reel hardness are isolated. 11 tables, 53 figures, and 20 references.

Paper for Offset. Part 1. Modern Lithography 23, No. 4, April 1955, pages 42-43 (2 pages). This first part discusses the compromises involved with and the relationship existing between properties such as tensile strength, tear and curl resistance, water resistance, opacity and others.

Paper for Offset. Part 2. Modern Lithography 23, No. 5, May, 1955, pages 46-47 (2 pages). The properties of paper such as pick resistance, water sensitivity and dimensional stability are discussed. Printing is discussed as being the real test of a paper's performance.

*Pick Tester. U.S. Patent 2,705,424. A. W. Pomer (to John Waldron Corp.). Official Gazette 693, No. 1, April 5, 1955, pages 34-35. 1. Apparatus for pick testing sheet material to be printed, which comprises means for subjecting successive areas of a sample of the material to substantially constant pressure printing with an ink of constant tack, means for maintaining the ink at substantially constant temperature, and means for accelerating the speed of printing for each successive area to a final speed beyond that at which picking occurs, and at which the printing on the final area of the succession is unsatisfactory, whereby the speed of the area which shows evidence of pick is an index of the pick characteristic of the material.

Beat the Humidity with Canvas Covers. P. R. Russell. American Printer and Lithographer 136, No. 5, May, 1955, page 28. This article describes how a publishing house covers piles of paper, both printed and unprinted, with canvas covers to prevent register troubles due to moisture changes. These covers are put over the stock and are fitted tightly around the bottom with a draw cord. These covers were found to be the best auxiliary aid to the plant's humidity control.

*Rheological Control Apparatus. U.S. Patent, 2,707,916. Daniel Smith and Daniel Hurley (to Interchemical Corp.). Official Gasette 694, No. 2, May 10, 1955, page 188. 2. The combination, with a printing press having a multiroller distributing system, of apparatus for adjusting the rheological properties of printing ink therein, comprising means for de-

tecting changes in the viscosity of printing ink on one of the rollers of the system, a nozzle directed toward another of the rollers in said system in advance of the first-named roller and connected with a supply of solvent for said printing ink, a valve connecting the supply solvent to said nozzle, and means automatically actuated by said detecting means for opening and closing said valve when the detected viscosity changes exceed predetermined amounts.

THE TECHNOLOGY OF PAPER COATING. I. Paint, Oil and Chemical Review 118, No. 7, April 7, 1955, pages 12-16, 52-54 (8 pages). Part I of four-part article which runs as follows: I. Introduction; II. What Will Coatings Do for Paper? A. Moisture Vapor Resistance, B. Water Resistance, C. Grease Resistance, D. Alkali Resistance, E. Acid Resistance, F. Solvent and Chemical Resistance, G. Abrasion Resistance, H. Gas Resistance, I. Heat Sealing; III. Methods of Applying Coatings to Paper. A. Physical Form of the Catalog, B. Machines for Coating Paper - 1. Sheet Coating, 2. Web Coating, 3. Print Roll Coating, C. Drying Systems.

*LABORATORY INSTRUMENT FOR REFINED SMOOTHNESS TESTS. Paper Trade Journal 138, No. 36, September 3, 1954, page 40; Printing Abstracts 9, No. 12, December, 1954, page 813. The RD Smoothness Tester, for determining the smoothness of both the felt and wire sides of the paper. separately and simultaneously, is available from W. & L. E. Gurley, Industrial Division, Troy, New York. The test consists of comparing the paper sample against optically flat metal surfaces, by determining the rate at which air flows between the two. The sample is placed between two circular steel blocks and held by the top one only. It is tested in a practically uncompressed condition. The instrument is available in two models: (1) with small test blocks of one square inch contact area and used for newsprint, kraft, bond, and other low-finish papers; (2) with large test blocks, used for smoother papers. Paper Trade Journal is published by Lockwood Trade Journal Co., Inc., 15 West 47th Street, New York 36, New York.

Lithography—General

INSTRUMENTS AND TECHNIQUES FOR STUDYING THE MICROSTRUCTURE PHOTOGRAPHIC IMAGES. G. C. Higgins and L. A. Jones. Photographic Engineering 6, No. 1, 1955, pages 20-32 pages). Instruments are described for measuring visually the graininess of photographic images and for measuring objectively the granularity of images in terms that will correlate with graininess. The customary method of measuring resolving power is outlined. The new con-"acutance" which is defined cept of operationally as the psycho-physical correlate of the sharpness of an image, is discussed and a method of measuring it is described. The relationship between sharpness and resolving power is discussed briefly.

(Continued on Page 104)



4 color offset reproduction

55

WARREN'S

Lithographic Papers

Lusterkote • Offset Enamel • Overprint Label C1S • Sebago Label C1S Fotolith Enamel • Silkote Offset

PAPER MERCHANTS

who sell and endorse

Warren's Standard Printing Papers

Albany, N. Y.
Atlanta, Ga.
Baltithore, Mo.
Banor, Rouge, La.
Brimingham, Ala.
Brimingham, Ala.
Brimingham, Ala.
Brithore, More, Company
Boose, Idanio, N. Y.
Charleson, Ill.
C

EXPORT AND FOREIGN

EXPORT AND FOREIGN

NEW YORK CITY (Export) National Paper & Type Co.
40 cities in Latin America and West Indies.

New York City (Export) Moller and Rothe, Inc.
20 countries in Latin America and West Indies.

New York City (Export) Muller & Phipps (Asia) Ltd.
Belgian Cenge, Burma, Ceylon, China, Hong Kong, Iceland,
India, Malaya, Philippine Islands, South Africa.

NEW ZEALAND

B. J. Ball Limited

New ZEALAND

HONGHOULE PAPER CO., Ltd.

Agents for Zellerbach Paper Company



PHOTO BY PAUL S. DAVE

WARREN'S

Lithographic Papers

Lusterkote · Offset Enamel · Overprint Label C1S · Sebago Label C1S Fotolith Enamel · Silkote Offset

Warren's LUSTERKOTE COVER provides a mirror-like glossy surface that contributes brilliance to the highlights and colors in lithographic reproduction. Now available with the lustrous finish on both sides of the paper.

Warren's Offset Enamel is a double coated paper for the printing of pictures by offset lithography. Double coating improves printability and uniformity, resulting in a higher potential of lithographic reproduction. Offset Enamel is available in glossy finish, Saxony finish, and dull finish. Also available coated one side only.

Warren's OVERPRINT LABEL is double coated on one side and is eminently suitable for labels produced by offset lithography or by letterpress. This paper is pre-conditioned by an exclusive process.

Warren's SILKOTE OFFSET has the appearance of a wove offset but has a unique pigmented surface that gives more brilliant reproduction. It also offers a high degree of dimensional stability. Silkote Offset is available in Wove and Saxony finish.

Warren's FOTOLITH ENAMEL is a new quality of machine coated two side paper for the reproduction of halftones by offset lithography.

Warren's SEBAGO LABEL C1S is a new quality of machine coated label paper for offset lithography or letter-

Write for free booklet—"How Will It Print by Offset"

S. D. WARREN COMPANY · BOSTON 1, MASS.





Ad Entries Due in Sept.

Entries in the 1955 Printing Industry of America Printers' and Lithographers' Self Advertising Exhibition and Awards must be submitted by Sept. 23, according to P.I.A. Inc. and Miller Printing Machinery Co., sponsors of the event. Winners will be announced and prizes awarded at a presentation breakfast on Tuesday, Oct. 18 during P.I.A.'s annual convention in Atlantic City. Peggy Wood, TV's "Mama," and star of stage, screen and TV, will make the presentations.

Schlegel Litho Advances Shaffer

l CIS

pro-

or by

e-con-

as the

has a

gives

t also

sional

ilable

L is a

d two

ion of

S is a

label

letter-

S.

ess.

Richard F. Shaffer has been named vice president in charge of manufacturing and a director of the Schlegel Lithographing Corp., New York, it was announced last month.

Houston to Give Offset Courses

A program in offset printing will be offered this fall for the first time in the Southwest by the Graphic Arts Management department of the University of Houston, it was announced recently by S. Wayne Taylor, chairman of the department. An introductory course in offset, and advanced courses in camera, stripping and platemaking, and presswork are scheduled.

The department has a new ATF copy camera, three stripping tables, platemaking equipment, and three offset presses, including a new ATF "Chief." A B.S. degree is awarded at the end of the four-year study, at which time the graduate is thoroughly versed in the management end of the printing business, Mr. Taylor said.

Methodist Publishing House Builds New Office, Expands Offset

Scheduled for completion this year is Methodist Publishing House's fivestory addition.



A program begun five years ago to expand and consolidate printing and binding plant, business and editorial offices of the Methodist Publishing House, Nashville, Tenn., will be completed late this year with the construction of a five-story office building. Total cost of the investment now approaches \$5,000,000. When completed, R. G. Graham, director of manufacturing, and the production and methods departments of the plant will be moved into the new building and space now occupied by them will be used for expansion of the offset press department.

The new office building will add

100,000 square feet of floor space to the 400,000 feet in the present plant, making it the largest printing institution in the South. Publications, books and other printed items produced in this plant are distributed through 15 branch houses throughout the U.S. Last year nearly \$20,000,000 sales were rung up.

Features in the new office building are movable interior partitions, a flexible system of general illumination, accoustical ceiling, and yearround air conditioning. Excavation for the new building is now underway with the general construction contract to be let this fall.

Avery Settled in New Building

Avery Press, Inc., Columbus, Ind., first printer to install offset equipment in the area is completely settled in its new building now, giving the company more than 10,000 square feet of floor space, according to J. E. Avery, president.

Equipment includes two 23 x 36 Harris single-color presses, Chief Webendorfer, and complete camera and plate-making facilities. Bindery machinery includes two cutting machines (one a new 40" power back



gauge Seybold), Graeber tag stringer, power drills, and folders.

We'd Like to say, you can run your Press in White Tie & Tails, BUT,



The **DIS-COVER*** (disposable dampening roller cover) doesn't perform miracles. It will never be better than the pressman that uses it.

If you want freedom from Lint

If you want fast changes to clean dampeners

If you're pushed for time—most of the time

THEN, the sensible, practical DIS-COVER* is the answer.

Call your dealer or write to

NORMAN A. MACK ASSOCIATES, INC. 48 Rippowam Rd., Stamford, Conn.

^{*}Trademark and Patents applied for.

Montreal Litho President Dies

John Walter Cuttle Taylor, president of Montreal Lithographic Co., Montreal, Que., for the past 40 years, died last month. He remained active with the firm until his death. Mr. Taylor, who was 87, served successively as superintendent, director and vice president before becoming president of the firm in 1915. He was honorary president of the Canadian Lithographers Association.

Stanley Greetings Sold

Chesapeake Industries, Inc., New York, has purchased Stanley Greetings, Inc., Dayton, O., William C. MacMillen, Jr., Chesapeake president, announced last month. The Stanley firm, founded in 1911, pioneered in the manufacture and sale of modern, colored greeting cards.

John O. Henry, who has been secretary of Chesapeake Industries, will become president of Stanley Greetings, replacing William McKinley Wetzel. Mr. Wetzel heads Herbert A. Post, Inc. of New York City, from whom Chesapeake acquired the Dayton company.

Stanley Greetings has 115 employees and 36 sales representatives in the U. S. Originally a manufacturer of name plates and seals, Stanley Greetings adapted these products to greeting card decorations many years ago, when most such cards were especially printed Christmas items.

Summer Showings: LNA Exhibit

The summer schedule of showings for LNA's 5th Lithographic Awards Competition Exhibit is as follows:

Aug. 8 to 10—Richmond, Va. (sponsored by The Baughman Co.); Aug. 15 to 29—Washington, D. C. (sponsored by the Graphic Arts Assn. of Wash. and the Dept. of Commerce); Sept. 6 to 8—Baltimore, Md. (sponsored by the Graphic Arts Assn. of Baltimore); Sept 12 to 16—New York City—Hotel Biltmore (sponsored by several LNA members in the metropolitan area).

Commitments for ten additional showings in the future include Albu-

55

New LNA Officers

Board of Directors and Officers of the Lithographers National Association elected at the 50th anniversary convention, Lake Placid Club, seated, (1 to 1) L. E. Oswald, E. F. Schmidt Co., treasurer: W. H. Walters, U. S. Printing & Lithograph Co., chairman of the board: Carl R. Schmidt, Schmidt Lithograph Co., presi-

dent; Carl N. Reed, Niagara Lithograph Co., vice-president; W. Floyd Maxwell, LNA executive director; Maurice Saunders, honorary chairman of the board.

Center Row: Charles H. Waldhauer, U. S. Playing Card Co.; William H. Bulkeley, Kellogg & Bulkeley Div., Conn. Printers, Inc.; John M. Wolff, Jr., Western Printing & Lithographing Co.; Ernest E. Jones, Graphic Arts Corp. of Ohio; Thomas Stevenson, Jr., Stevenson Photo Color Separation Co.; Morris W. Davidson, Courier-Journal Lithographing Co.; James S. Armitage, Inland Press, Inc.

Top Row: Arthur R. Hitchings, Forbes Lithograph Mfg. Co.; Richard N. Kauffman, H. S. Crocker Co.; Charles W. Weiss, Jr.; Ste-

char Traung Lithograph Corp.; Quentin O. Young, counsel; Randolph T. Ode, Providence Lithograph Co. honorary director; Winship, Brett Lithographing William M. Co.; Edward D. Morris, secretary. Other LNA directors not shown are Georga J. Bauhens, Clarke & Courts; B. E. Callahan, Inland Lithograph Co.; Edward J. Chalifoux, Photopress, Inc.; Con P. Curran Jr., Con P. Curran Printing Co.; Malcolm Dennison, Rocky Mountain Bank Note Co.; W. Harvey Glover, Sweeney Lithograph Co.; John H. Harland, John H. Harland Co.; Allerton H. Jeffries, Jeffries Banknote Co. C. Kindred, Kindred, MacLean & George Co.; Edward E. Loebe, The Regensteiner Corp.; William E. Zabel, Jr., Zabel Bros. Co.

querque, N. Mex., Buffalo, N. Y., Cincinnati, Ohio, Denver, Colo., Louisville, Ky., Milwaukee & Racine, Wisc., St. Louis, Mo., San Francisco, Calif., Waterloo, Iowa.

Western to Build in Missouri

"Western Printing and Lithographing Co., Racine, Wis., has signed contracts on a plant in Hannibal, Mo. The firm will locate in a building to be constructed by the Hannibal Industrial Development Co. Western plans to hire between 100-150 persons for the new plant.

Color Estimating Course Offered

Metropolitan Lithographers Assn., New York, announced that the offset estimating (B&W) course would be repeated in the fall and that a course in offset process color estimating would be offered, as well as the Survey of Lithography, a series of lectures and plant visits to orient front office personnel, new salesmen and others, in the industry.

The courses, given at the New York Trade School, are sponsored by the MLA. Sessions will be held one evening a week for approximately sixteen weeks starting in October.

Adcrafters Elect Lithographer

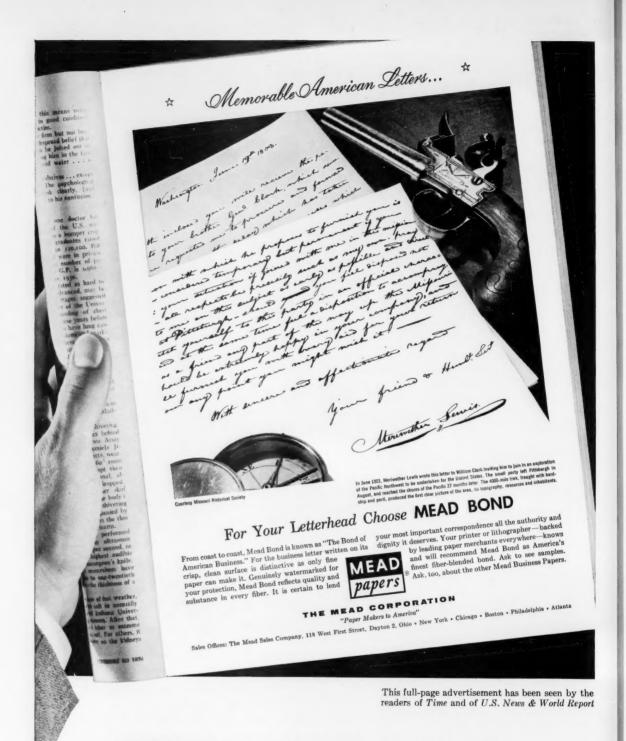
Noland Russel, Modern Lithograph Co., San Francisco, was named president of the Adcrafters for 1955-56 at the monthly meeting, July 7, of the San Francisco Club. Other officers are Edward Cook, P. Carlisle Co., vice president; and Ken Kerr, Pabco, Inc., treasurer.

Teadt Opens Litho Shop

Martin Teadt has left Toledo Colortype Co. to open his own lithographing and plate-making shop at 2029 Adams St., Toledo, Ohio. The firm will be known as Progress Colorplate. Mr. Teadt was shop supervisor at Toledo Colortype for the past $5\frac{1}{2}$ years, and had been with Toledo for 17 years.

British Std. for Litho Inks

A demand for a series of offset inks comparable in hue with letter-press inks (standard B.S. 1480) has resulted in the publishing of a standard for Offset lithographic inks in Britain. The London Times reports that copies of this standard may be obtained from the British Standards Institution, 2 Park St., London W. (Price, 6s net).



ADVERTISING THAT HELPS YOU SELL

Mead Papers mean business . . . for merchants, merchant-salesmen, printers, lithographers and advertisers. Making Mead Papers unforgettable in the minds of your customers—all who buy and specify paper products—is the job being done through our national advertising. Remember, Mead Papers mean business for you.

PIA Urges Early Registration

Advance convention registration forms were sent out last month by Printing Industry of America with a reminder that early return of reservations was important for attendance at the 69th annual convention, October 17-20, Chalfonte-Haddon Hall, Atlantic City, N. J.

The program, in brief is lining up as follows:

Monday, Oct. 17: General sessions all day.

Tuesday: Concurrent sessions of the Union Employers section and the Master Printers section (all day).

Wednesday: Concurrent sessions of the Union Employers section and the Master Printers section in the morning; rotary business forms section meeting (all day); concurrent sessions of Web Offset section, Trade Binders section, and Ticket Printers section in the afternoon.

Thursday: General session in the morning; concurrent sessions of Web Offset section, Trade Binders section and Ticket Printers section in the morning; general session and adjournment in the afternoon.

Makarius Authors Press Book

"Operation of the Offset Press" is the title of a new book by Theodore F. Makarius of Pope & Gray, Inc., Clifton, N. J. There are 25 chapters and 16 illustrations which cover setting pressure, inking rollers, dampeners, ink fountains, mounting plate and blanket, split fountain printing, drying problems, register trouble, etc.

An Ink Problem Reference Chart lists 28 of the more common problems, how to identify each, the possible cause and remedy. ML will review the book completely next month.

Turner in Expansion Program

Turner Printing Machinery, Inc., Chicago, has started a major expansion move to increase facilities for demonstrating and displaying graphic arts equipment in its Cleveland plant, to allow more storage and warehousing facilities in Toledo and to enlarge the sales staff.

Turner was recently appointed representative for the Babcock offset

Advertising Leaders to Judge Craftsmen's Contest







Fred Baker

Mary Reinmuth

O. T. Cochran

Mary Reinmuth, advertising manager, Fraser Paper, Ltd., New York; Fred Baker, director of public relations, Harris-Seybold Co., Cleveland; and O. T. Cochran, sales manager, Sta-Hi Corp., Whittier, Calif. have been chosen as judges for the 1954-1955 Club Bulletin Contest of International Association of Printing House Craftsmen.

Miss Reinmuth is active in AWNY (Advertising Women of New York), including the Club publication, and is editor of the *Fraser Voyageur* external house organ of Fraser Paper.

Mr. Baker was formerly advertising manager before being named director of public relations at Harris-Seybold (see ML, April, p. 97). He previously edited Harris Impressions and assisted in editing Harris' external house organ, Graphic. He is a former associate editor of Steel.

Mr. Cochran, at one time sports and assistant city editor of daily newspapers in Southern California and Arizona, has handled his company's advertising and promotion for the past ten years. He is currently president of the Whittier Advertising Club, and is a former editor of the Club's publication.

As in the competition, last year, bulletins will be judged in two categories; Class A (less than 150 members), and Class B (150 members or more). The 150 figure represents the median membership of the 51 clubs that filed entries in this year's contest. Gold cups will be awarded to the top three bulletin winners in each group and certificates will be awarded to the seven runners-up in each group. Presentations will be made at the 36th International Craftsmen's Convention in Cincinnati, Aug. 7-10.

printing press manufactured in Canton, O. More than 6,000 square feet will be added to the Cleveland plant, and plans are to open a branch office in New York this fall.

Champion Reports New Highs

Champion Paper and Fibre Co.'s annual statement to shareholders for the fiscal year ended March 31, 1955, issued last month, reports sales at a record peak, 5.6 percent above last year, as well as new highs in production of both pulp and paper.

Reuben B. Robertson, Jr., president of Champion said that Champion's sales amounted to \$135,160,000, as compared to \$128,000,000 for the previous 12-month period and net income came to \$10,202,000 as against \$9,546,000 in 1954.

Shriner Head Is Lithographer

Walter C. Guy of Little Rock, Ark., was named imperial potentate, last month, of 800,000 Shriners of the U.S., Hawaii, Canada, Mexico and Central America. Mr. Guy is president of Arkansas Printing & Lithographing Co. in Little Rock.

He was first elected to the 13member Imperial Divan, ruling body of more than 600 Shrine temples, in 1946, and has moved up in rank each year since then.

Gibson Dies in Cincinnati

Edwin P. Gibson, 76, retired head of the Gibson Art Co., oldest greeting card company in the country, died last night at his home in Cincinnati. Mr. Gibson retired in 1947.

"For fixing capacity and speed... **Hunt**

FLASH-O-GRAPH Fixer

beats them all!"

Reports like this come in almost daily from photographers who are fixing *more* film and *more* prints with Hunt FLASH-O-GRAPH Fixer than they've ever done with any other fixer

They get fixing *speed* as well. With Hunt FLASH-O-GRAPH, photo-mechanical film clears in less than 20 seconds; commercial pan film in less than 50 seconds; and photo papers fix in less than 90 seconds.

There's an added reason too, which assures better *results*. We mean the convenience of controlling the hardening quality of both film and prints to suit your own conditions of temperature and humidity, by adding just the right amount of hardener from the separate bottles supplied in each carton.

Order a carton of FLASH-O-GRAPH today and prepare for a pleasant surprise. You can order direct from any Hunt Branch, or write for price list to Palisades Park, N. J.





Each carton of Hunt FLASH-O-GRAPH Fixer contains four 1-gallon jugs of Fixer, four 12-ounce bottles of FLASH-O-GRAPH Hardener, and two measuring graduates.

PHILIP A. HUNT COMPANY

Chicago · Cleveland · Cambridge · Brooklyn · Atlanta · Dallas · Los Angeles · San Francisco

Established

Free Camera School To Open

Darling-Payne Corp., New York, has announced the opening of a free camera school and demonstration workshop, to meet at its offices, 82 Beekman St., New York.

A fully equipped darkroom with a Wesel "25" Camera and a Kenro Vertical Camera has been installed. According to Tom Darling, president, all owners and workers in offset plants and letter-shops are invited to attend without charge. The course, conducted by demonstrators under the supervision of Mr. Darling, will comprise two evening sessions. Initial meetings will take place Sept. 7 and 8, at 6 p.m., and the course will be repeated on successive Wednesday and Thursday evenings throughout 1955 and most of 1956.

Wednesdays classes will cover the use of cameras, as well as negative and plate making. On Thursdays, the students will do the actual copying, negative preparation and plate work. All materials will be supplied free, Mr. Darling said. Students will be accepted for classes in chronological order, on receipt of their application blanks (available by writing directly to Tom Darling).

Bachman Now Incorporated

Bachman Reproduction Service, Inc., New York, is celebrating its 38th year in business this year. They incorporated in January, 1955 and named the following officers: Frank E. Bachman, president; Charles M. Bachman, vice president; Alvin L. Bachman, secretary; and George W. Bachman, treasurer.

Leahy Named W & S Executive VP

William J. Leahy was elected executive vice president of Wild & Stevens, Inc., Newton Upper Falls, Mass., at the July 15 meeting of the board of directors.

Mr. Leahy has been associated with Wild & Stevens for 10 years and formerly was vice president and sales manager.

His new duties will include supervision of the manufacture of rollers for the printing industry, as well as for the textile, leather and paper industries now being made by

the newly-formed Rubber Manufacturing division at Woburn, Mass.

Mr. Leahy also is president of the Wild & Stevens offset machinery subsidiary, Widens, Inc.

Murphy Is 3-M Manager

Advancement of Kenneth B. Murphy to Ch'ago sales manager, printing products division, was announced last month by Minnesota Mining & Manufacturing Co., St. Paul. Minn.

Mr. Murphy will continue to make his headquarters in Chicago and will be responsible for the sales of "Spherekote" brand products and lithographic plates in Illinois, Indiana, Wisconsin, Minnesota, Iowa, North Dakota and South Dakota.

Forbes Names Hazelton

Robert G. Hazelton recently has been appointed sales representative in the New York area for Forbes Lithograph Mfg. Co., Boston. Mr. Hazelton has had several years' experience as account executive of Paris & Pearl and



as advertising manager of R & H Brewing Co. He has been managing director of the Advertising Trades Institute.

Majestic Press Founder Dies

Louis Green, co-founder and secretary treasurer of the Majestic Press, Inc., Philadelphia, died July 13. He was 55. Mr. Green and his brother, Jacob, founded the printing and lithographing company in 1918.

Devanagari, Indian Script Set by Fotosetter

One of the world's most complicated languages, the Indian Devanagari script, is being successfully set on film by Fotosetter, Intertype Corp.'s phototypesetting machine. The Devanagari script, derived from ancient Sanskrit, is to Hindi (the official language of India) what the Roman alphabet is to English. Unlike English, however, Devanagari is based on the actual sounds used in speech. In order to indicate on paper almost imperceptible variations of sound, a highly intricate system of accent marks and characters is integrated in the written language.

Hindi is now becoming more and more widely accepted as the language of the country, and the Devanagari script is well established as a script comprehensible to more Indians than is any other. There have even been efforts to standardize all Indian languages on this one script, and there is some chance that one day it will be as universal as the Roman alphabet in Europe and the Americas.

Hindi is remarkably precise, but this precision is costly in terms of typesetting efficiency. Accent marks attached to the tops or bottoms of basic characters, indicating intermediate vowel sounds, create an almost limitless theoretical number of characters necessary in a font of Devanagari foundry type. In actual practice, the number has been held down to from 700 to 1000 characters. In the design of Fotosetter Devanagari, it was possible to reduce the number of Fotomats required for a basic font to around 175, including numerals and punctuation.



Hari G. Govil, type specialist in Indian languages, operates the Fotosetter machine in Intertype's Brooklyn, N. Y., plant.

Offset printing in India has never been widespread, although it is gradually being adopted for a variety of jobs. Most printing has been done by letterpress, from type.

The greatest potential in India for the Fotosetter is as a help in combating illiteracy, Intertype men say.

If adequate machine typesetting can be furnished for Oriental countries also, a big step in cultural progress will have been made.



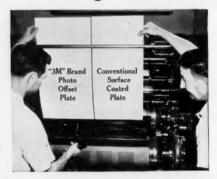
6 Plates in 35 Minutes..

No Summertime Slowdown for The Egan Co.!

Heat and Humidity no longer slow down lithographers like The Egan Printing Co. of Dallas, Texas-thanks to "3M" Photo Offset Plates. In fact, six 22" x 34" plates went from package to press in 35 minutes with perfect results. Hal Shank, Litho Superintendent, says, "3M's aluminum plates put an end to erratic exposure and development time. We haven't had a speck of trouble or down time, either, due to oxidation or scumming during storage or short press stops." Yes, "3M" pre-sensitized aluminum plates can't oxidize and their smooth, grainless surface guarantees deep-etch quality on every run.

See a "Naked Truth" Test in Your Shop

In your own shop, you can see a revealing proof-positive demonstration of "3M" Photo Offset Plates' superiority over ordinary surface-coated plates. See for yourself the "Naked Truth" . . . mail the coupon below today.





MINNESOTA MINING & MFG. CO., DEPT. ML-85, ST. PAUL 6, MINN.

"Humid or Hot...They Hold the Dot"

3M Photo Offset Plates

World's Largest-Selling Sensitized Aluminum Photo Offset Plates

Please arrange for a "Naked Truth" test in my shop, without cost or obligation. We have a. Press. Position.

_ Company_ Name City_



Kukla Joins Publishers Offset

Stanley J. Kukla has recently become associated with Publishers Offset Corp., Chicago, as general man-



S. J. Kukla

ager of the company. Established six years ago, Publishers Offset has become Chicago's largest all-web offset company, printing all types of multicolor commercial work, children's books, wrappers and other products from roll stock on Webendorfer web offset presses. Equipment includes one of the largest 4-color, high speed perfecting presses available, printing eye safety control; available in 32", two colors, two sides on two sheets or one color two sides on four sheets.

Mr. Kukla moved to Publishers Offset Corp., from Chicago Offset Printing Co., where he had been vice president in charge of mechanical operations since 1952. Previously he was executive vice president of the I. S. Berlin Press for many years. A former president of the Chicago Lithographers Association, he was also a member of the board of the Chicago Lithographic Institute.

Haynes Building New Plant

The Haynes Lithograph Co., Silver Spring, Md., broke ground last month for a new modern lithograph plant which will have 150,000 square feet, located in Rockville, Md.

When completed, the unit will be one of the largest lithograph plants in the east. Offset presses including Harris four and five-color 76" presses and two-color 76" presses will be installed. A new web 96-page offset press will be used for publication work. The new plant

will also have complete binding facilities and will employ about 300 people.

Occupancy of the first section of the building is expected in the fall of 1955 with the entire structure to be completed early in 1956.

West Coast Lithographer Dies

Funeral services were held June 27 for Adolph Lehmann, founder and principal owner of Lehmann Printing & Lithographing Co., San Francisco, one of the nation's largest manufacturer of stock labels. Mr. Lehmann, who was reported to be in his 80's, retained active management of the company until his death. He supervised expansion of the plant to more than double its previous size five years ago.

Mr. Lehmann began his career as a compositor and organized the Lehmann Printing Co. at the turn of the century. However, he gradually eliminated most of the letterpress equipment and did his major production by the lithographic process. He started selling stock labels before the San Francisco earthquake in 1906.

Bird To Illinois GAA

Graphic Arts Association of Illinois has named Paul H. Bird to the position of director of management services, recently vacated by the resignation of David Jacobs. Mr. Bird is a graduate of Carnegie Tech's School of Business Administration and Printing Management. His printing experiences include offset plate making for the U.S. Bureau of Internal Revenue, Washington, D. C., and a war time assignment with the Army Map Reproduction Service. He has also done sales and sales service work for Hankel-Pfister Printing Co. and Magill-Weinsheimer Co.

Jos. Hoover Officer Dies

Joseph F. Costello, vice president in charge of management of Joseph Hoover & Sons, Philadelphia, died July 1 at Germantown Hospital. He was 57. Mr. Costello had been president of the Lanston Monotype Machine Co. for 15 years before joining the firm four years ago.

Oehme Named C.L.I. Manager

Frank F. Oehme became general manager of the Chicago Lithographic Institute July 1. He has been closely



F. F. Oehme

associated with the offset industry in Chicago for eighteen years. Directors of the Institute selected him to fill the vacancy created by Albert N. Brown's resignation (see *ML*, July, p. 97).

Mr. Oehme has been associated with R. R. Donnelley & Sons Co., Rand McNally & Co., Ace Carton Corp., E. F. Palmer & Co. and Gaertner & Bender. His experience also includes war time service with army map reproduction division and one and a half years in business for himself with the Express Arrow Printing Co. He has been on the staff of the Institute for five years, and for three years he has been midwest field service representative for Printing Developments, Inc.

C&G Name Hundley Mgr.

Edwin B. Hundley, Jr., was appointed to the newly-created post of sales manager of the Nashville division, Cullom & Ghertner Co., Nashville, according to an announcement made last month by Alven S. Ghertner, president.

Mr. Hundley came to Cullom & Ghertner from the McBee Co., St. Louis, Mo., where he was assistant sales manager.

Mr. Ghertner also announced that two new salesmen have been added to the Nashville sales staff: King Chisholm, formerly of the firm's Chicago office, and Wayne Irwin, formerly with Foster and Parkes.

speed

...mixed for you by Mallinckrodt

by Mall

JIRRX

the professional-quality liquid fixer for all film and paper

you fix film in 2 minutes

with a fresh Jiffix solution—much faster than with ordinary hypo.

convenient _ just add water.

easy control — hardener bottled separately —add just enough to give the exact result you want.

economical —for photo-mechanical film, you dilute Jiffix up to 11 times . . . films still clear in 25 to 30 seconds. Renew the solution often . . . at low cost.



For continuous tone prints—develop in Pictone®

MALLINCKRODT CHEMICAL WORKS

Mallinckrodt St., St. Louis 7, Mo. 72 Gold St., New York 8, N. Y.

CHICAGO - CINCINNATI - ELEYELAND - LOS ANGELES - PHILADELPHIA - SAN-FRANCISCO - MONTREAL - TORONTO

Manufacturers of Medicinal Photographic Analytical and Industrial Fine Chemical



Parker Joins Southwest Sales

William Parker has been named to the sales department of Southwest Printing Co., Dallas, Texas, according to an anouncement by Roy Cowan, president. Mr. Parker has had seven years experience in photography,



sales and printing and will represent the company for business and advertising printing, with emphasis on Litho-Krome, a control process for fine printing.

Schmidt Plant Soon Finished

A \$250,000 addition to the B. F. Schmidt Co., plant in Milwaukee will be completed this summer, the company announced. The new 16,400 square foot addition will house all of the present offset equipment plus a new four-color offset press. Air-conditioned, the structure will have identical lighting day and night and enough storage space for a 15 days supply of paper.

Offset Up at Letterpress House

Hersh Printing Co., Cleveland, just installed a new 17 x 22 Chief Webendorfer offset press, marking the third jump in size of offset equipment in three years. Starting with a Multilith duplicator, they added a 14 x 20 Webendorfer a year later and traded it in on this new press. Future plans call for a 22 x 34 press, according to Bernard Hersh, president.

Brown Building New Plant

W. A. Brown Mfg. Co., Chicago, has started construction of a new plant in suburban Woodstock, Ill. The plant, which will contain 21,000 sq. ft. of manufacturing space, is scheduled for completion about Oct. 1.

Schuler Named Superintendent

Spaulding-Moss Co., Boston, announced recently the promotion of Emil J. Schuler of Needham, Mass., to plant superintendent. He will be responsible for all production in the new Offset Printing division. Mr. Schuler has been affiliated with Spaulding-Moss for more than twenty years.

"Stone Age" Lithography Pictures Early California Life

RARE "Stone Age" lithographs depicting life in California following the "gold rush" days of 1849 have been attracting many visitors to the Chicago Historical Society's Museum this summer. Filling three large galleries, the display, entitled "California, Her Gold and Growth," includes an extensive series of "bird's eye" views of many of the state's large cities in their boom-town days. Most of the prints bear the legend "Drawn from nature on stone," or "Drawn on the spot."

One map of California, dated 1851, is based on "the most recent survey and exploration" and has a "complete delineation of the gold region," marked in a faint blue overprint on the black background. Several atlases with lithographed guide maps for travellers are shown and among other prized items is a collection of letterheads carrying elaborate lithographed views of communities, evidently designed to appeal to the tourist trade. One, produced about 1850, realistically depicting "Eight scenes in the life of a gold prospector," was printed with metallic gold ink, still faintly lustrous after more than a century.

Numerous cartoons expressing the spirit of the rough and tumble life in mountain mining camps or recording the trials of travel to California are in the exhibit. One dated, 1849, and entitled "The Way They Go To California," pictures a "windjammer" in full sail, around whose masts circle two curious contraptions with prophetic implications. One is labeled "Airline — Through by Daylight;" the other, a cigar-shaped, one-man aircraft is underlined "Rocket Line — Through in Advance of the Telegraph."

One serious subject, "The Winter of 1852-53," reveals that beans, barley and flour were selling for \$2 a pound that year.

Most of the "bird's eye" views are in the nature of Chamber of Commerce booster material. Of broadside proportions, four or five feet in dimensions, the center of the layout is a geometrically plotted "aerial" picture of the whole community. Surrounding this are pictures of the mansions of the town's leading citizens, or other buildings as the livery stable, "female seminary," the "Boston Fancy Store," the quartz mill, court house and church.

Early lithographers seemed to like views of California scenery, on the order of today's picture post cards but not on post card stock or in today's post card size. Most of the prints are in a black monotone, faded now, with a rusty brown tinge. One gallery of the Chicago display devoted exclusively to pictures of San Francisco includes several bearing imprints of French, German and English litho firms. One 1861 view of San Francisco bears the legend "Lithographed by Deroy, printed and published by L. Turgis, Paris, France." Another of "San Francisco in 1851" was "Lithographed by M. and N. Hanhart, published by Ackerman & Co., London." "Street Scene in San Francisco, 1862" was lithographed (in color) by Winckelman & Son, Berlin, Germany, and others bear the imprint of Just, Arnz

& Co., Dusseldorf, Germany.

The name of Britton & Rey, of San Francisco appears so often it suggests that this firm could have been the "Currier & Ives of California." Next most frequently appearing name is that of Kuchel & Dresel, 146 Clay St., San Francisco. Others include Justh & Co., Quirck & Co., A. L. Bancroft & Co., B. F. Butler, Chas. B. Gifford, all of San Francisco.

Schmidt Label & Lithograph Co. of San Francisco, possible forerunner of today's Schmidt Lithograph Co., contributed "San Francisco, 1849," from the drawing by Henry Firks.

H. M. Holloway, assistant director of the Chicago Historical Society, says:

"Whenever an idea is wanted about what life was like in the United States one hundred years ago, one must necessarily go to lithography."

Harris Features Robin Hood

"The Adventures of Robin Hood and his Merry Men" is the picturemap illustration in Harris-Seybold Company's 1955-56 midyear calendar. It was recently received by almost 20,000 graphic arts firms.

The painting for Robin Hood, depicting tales of Sherwood Forest, was done by Everett Henry, illustrator and cartographer.

The two forerunners to Robin



Hood in the new series were The Adventures of Tom Sawyer and Treasure Island. The supply of both of these subjects has been depleted.

The new Harris-Seybold calendar was produced by Brown & Bigelow Co., St. Paul, Minn., on a two-color 42 x 58" Harris offset press. Fifty percent rag content ivory stock was used for the calendar, which measures approximately 27 x 31".

A supply of extra calendars is available, as are some of the decorative prints without calendar, suitable for framing.

ALA Men Discharged in Denver

W. H. Kistler Stationery Co., Denver, has discharged sixteen employees involved in a dispute over a new contract, pending since expiration of the old contract May 1. The union is demanding a 7½-hour day, 37½-hour week according to William H. Kistler, president of the company. He said that a number of employees checked out a half-hour early July 1 and again July 5 and 6, and were warned that the action constituted cause for dismissal. Workers received termination notices when they

came to work the following morning. The 16 ALA men declined to accept the company offer to rehire them immediately if they re-applied to the personnel department and agreed to company working conditions.

Rice Dies on West Coast

Irwin H. Rice, a partner in George Rice & Sons (from 1879 to 1927), Los Angeles lithographers and printers, died July 8 in Los Angeles. He was 34. Mr. Rice was president of the Merchants and Manufacturers Association in the early 1920's, and is a former president of the Master Printers Association.

Hopp Dies in New York

Leo Hopp, secretary treasurer of the Hopp Press, Inc., New York, died June 2, at Manhattan Nursing Home. He was 82.

Mr. Hopp and his brother, Hermann, founded the company in 1893. Hopp Press, today, is a large producer of price marking devices for super-markets and also does lithography and plastics manufacturing.

Ward, 30 Years with B & B

Brown & Bigelow, St. Paul, Minn., recently concluded its managers' conference with a surprise celebration in honor of Charles A. Ward, president. Mr. Ward's thirty years with the company are reviewed in a handsome brochure, covered in blue-velvet flocked paper and containing illustrations and the story of "thirty years of distinguished leadership."

Offset Man Is Craftsmen VP

Lowell L. Dummer, partner in Bruce Offset Co., was recently elected vice president of the Chicago Club of Printing House Craftsmen. In other Chicago graphic arts association elections, Gil Liebenow of Box Print Machinery Co., was named the new president of Printers Supplymen's Guild; and Jos. L. Strauss, Jr., president, Hillison & Etten Co., was re-elected vice president. Harold R. White, vice president, Manz Corp., was elected treasurer of the Franklin Association of Chicago.

Lithographers Exhibit at Chicago Advertising Show

John S. Swift & Co., with lithographing plants in five cities, was among lithographers presenting their services for advertisers at the National Advertising Industries Exposition in Chicago, June 26-29. Catalogs, manuals, brochures, broadsides and sales literature in black and white and multi-color were shown, with emphasis placed on the quick delivery service from plants in St. Louis, Chicago, New York, Cincinnati and Cleveland. Dale E. Smith, assistant vice president and sales manager of the Chicago district, said that Swift has limited its convention appearances to gatherings of insurance groups for whom a specialized service in production of annual reports has been developed. The Chicago presentation was the first show given by Swift outside the insurance

Goes Lithographing Co., Chicago, displayed their calendar lines holiday stationery, bordered blanks, advertising blotters and other items for imprinting advertising messages. Paul Baron, president, Arrow Lithographing Co., Chicago, explained the company's offset printing and platemaking service with emphasis on photo copy preparation department.

nuArc Co., Inc., Chicago, featured a new rapid printer and accessories including a completely enclosed carbon arc lamp for office offset press work. Also shown was the recently introduced "Hi-Lite" camera lamp. John Schultheis, vice president, explained that it is completely automatic, is not motor driven and operates on a new principle which eliminates the solenoid feature of older models.

Russell E. Baum, Inc., Philadelphia, demonstrated models from their line of folding machines and the Ralph C. Coxhead Corp., Chicago and Newark, N. J., showed office machines for type composition. Fototype, Inc., Filmotype Corp., and Halber Corp., all of Chicago, demonstrated their alphabets for offset copy preparation.



Only 132 days to Christmas

And none too soon for retailers, manufacturers and mail order firms-and their printers too-to be thinking about printing papers for Christmas catalogs and sales promotions. Your nearby Oxford Merchant will be glad to show you what fine printing papers can do to help make your holiday catalogs and promotions an outstanding success.

nristmas

Announcing NEW COATED OFFSET PAPERS

xford Papers
Help Build Sales

This insert is a sample of the offset results you can get on





Planoflex Coated Offset

OXFORD PAPER COMPANY RUMFORD. MAINE • WEST CARROLLTON, OHIO

PLANOFLEX is one of Oxford's three new coated offset papers, perfected after three years of research and now in full production. All three rank high in brightness, opacity and appearance and have excellent dimensional stability. A new, exclusive coating formula gives them a level, polished surface with high pick-resistance for outstanding press results in monotone and full color.

PLANOFLEX is a moderately priced, coated-two-sides offset paper with printing qualities comparable to higher priced offset enamels. Planoflex meets all normal requirements for quality offset reproduction in monotone and full color. It takes varnish well and is also suitable for letterpress gloss ink printing.

SWIFT RIVER is a low priced coated-two-sides offset sheet approaching Planoflex in printing qualities and appearance. It is recommended for quality offset reproduction in monotone and full color. It is suitable for varnishing and for letterpress gloss ink printing.

UNIFLEX-C15 is a companion sheet to Planoflex in coated-one-side offset. It is equal to Planoflex in printing qualities and appearance. It, too, meets all normal requirements for quality offset reproduction in monotone and full color; it is excellent for varnishing as well as for letterpress gloss ink printing.

TWO VALUABLE AIDS. (1) The OXFORD PAPER SELECTOR CHART helps you select the right grade of paper for each job. (2) The OXFORD PAPER COST CALCULATOR quickly gives the exact cost per 1000 sheets for common weights and sizes of printing papers. Ask your nearby Oxford Merchant or write us direct.

Nation-wide Service Through Oxford Merchants

Albany, N. Y W. H. Smith Paper Corp.
Albany, N. Y W. H. Smith Paper Corp. Asheville, N. C Henley Paper Co.
Atlanta Ga Wyant & Sons Paper Co
Atlanta, Ga Wyant & Sons Paper Co. Augusta, Maine Carter, Rice & Co. Corp.
Baltimore, Md The Mudge Paper Co.
Asheville, N. C. Henley Paper Co. Atlanta, Ga. Wyant & Sons Paper Co. Augusta, Maine Carter, Rice & Co. Corp. Baltimore, Md. The Mudge Paper Co. Bethlehem, Pa. Wilcox-Walter-Furlong Paper Co.
Detrienem, Pa Wiscox-waiter-ruriong Paper Co.
Buise, Idano Blake, Moint & Towne
Boston, Mass Carter, Rice & Co. Corp.
Storrs & Bement Co.
Buffalo, N. Y Franklin-Cowan Paper Co.
Charlotte, N. C Caskie Paper Co., Inc.
Henley Paper Co.
Chattanooga, Tenn Bond-Sanders Paper Co.
Chicago, Ill Bermingham & Prosser Co.
Deadner Smith & Co.
Chicago, III Bermingham & Prosser Co. Bradner, Smith & Co. Marquette Paper Corporation
Marquette Paper Corporation
Midland Paper Company
The Whitaker Paper Co.
Cincinnati, Ohio The Johnston Paper Co.
The Whitaker Paper Co.
Cleveland, Ohio The Cleveland Paper Co.
Dayton, Ohio The Whitaker Paper Co.
Des Moines, Iowa Bermingham & Prosser Co.
Detroit, Mich Chope Stevens Paper Co.
Essena Calif
Fresno, Calif Blake, Moffitt & Towne
Gastonia, N. C
Fresno, Calif Blake, Moffitt & Towne Gastonia, N. C Henley Paper Co. Hartford, Conn Green & Low Paper Co., Inc.
Storrs & Bement Co.
High Point, N. C Henley Paper Co.
Indianapolis, Ind MacCollum Paper Co.
Indianapolis, Ind MacCollum Paper Co. Kalamazoo, Mich Bermingham & Prosser Co.
Kansas City, Mo Bermingham & Prosser Co.
Graham Paper Co.
V novuille Tenn
Knoxville, Tenn Louisville Paper Co.
Little Rock, Ark Roach Paper Co.
Long Beach, Calif Blake, Moffitt & Towne
Los Angeles, Calif Blake, Moffitt & Towne
Louisville, Ky Louisville Paper Co.
Lynchburg, Va Caskie Paper Co., Inc.
Memphis, Tenn Louisville Paper Co.
Milwaukee, Wis Allman-Christiansen Paper Co.
Sensenbrenner Paper Co.
Minneapolis, Minn Wilcox-Mosher-Leffholm Co.
Nashville, Tenn Bond-Sanders Paper Co.
Newark, N. J Bulkley, Dunton & Co., Inc.
New Haven, Conn Bulkley, Dunton & Co.
(Division of Carter, Rice & Co. Corp.)
(Division of Carter, Rice & Co. Corp.) Storrs & Bement Co.
(Division of Carter, Rice & Co. Corp.) Storrs & Bement Co. New York, N. Y Baldwin Paper Co., Inc.
(Division of Carter, Rice & Co. Corp.) Storrs & Bement Co. New York, N. Y Baldwin Paper Co., Inc. Bulkley, Dunton & Co., Inc.
(Division of Carter, Rice & Co. Corp.) Storrs & Bement Co. New York, N. Y Baldwin Paper Co., Inc. Bulkley, Dunton & Co., Inc.
(Division of Carter, Rice & Co. Corp.) Storrs & Bement Co. New York, N. Y Baldwin Paper Co., Inc. Bulkley, Dunton & Co., Inc.
(Division of Carter, Rice & Co. Corp.) Storrs & Bement Co. New York, N. Y Baldwin Paper Co., Inc. Bulkley, Dunton & Co., Inc. Green & Low Paper Co., Inc. Kennelly Paper Co., Inc.
(Division of Carter, Rice & Co. Corp.) Storrs & Bement Co. New York, N. Y Baldwin Paper Co., Inc. Bulkley, Dunton & Co., Inc. Green & Low Paper Co., Inc. Kennelly Paper Co., Inc. The Whitaker Paper Co.
(Division of Carter, Rice & Co. Corp.) Storrs & Bement Co. New York, N. Y Baldwin Paper Co., Inc. Bulkley, Dunton & Co., Inc. Green & Low Paper Co., Inc. Kennelly Paper Co., Inc. The Whitaker Paper Co. Oakland, Calif Blake, Moffitt & Towne
(Division of Carter, Rice & Co., Corp.) Storrs & Bement Co. New York, N. Y Baldwin Paper Co., Inc. Bulkley, Dunton & Co., Inc. Green & Low Paper Co., Inc. Kennelly Paper Co., Inc. The Whitaker Paper Co. Oakland, Calif Blake, Moffitt & Towne Omaha, Neb Western Paper Co.
(Division of Carter, Rice & Co. Corp.) Storrs & Bement Co. New York, N. Y
(Division of Carter, Rice & Co. Corp.) Storrs & Bement Co. Storrs & Bement Co. Storrs & Bement Co. Storrs & Bement Co. Bulkley, Dunton & Co., Inc. Green & Low Paper Co., Inc. Kennelly Paper Co., Inc. The Whitaker Paper Co. Oakland, Calif. Oakland, Calif. Blake, Moffitt & Towne Omaha, Neb. Philadelphia, Pa. Wilcox-Walter-Furlong Paper Co. Wilcox-Walter-Furlong Paper Co.
(Division of Carter, Rice & Co. Corp.) Storrs & Bement Co. New York, N. Y. Baldwin Paper Co., Inc. Bulkley, Dunton & Co., Inc. Green & Low Paper Co., Inc. Kennelly Paper Co., Inc. The Whitaker Paper Co. Oakland, Calif. Blake, Moffitt & Towne Omaha, Neb. Western Paper Co. Philadelphia, Pa. Atlantic Paper Co. Wilcox-Walter-Furlong Paper Co. Phoenix, Ariz. Blake, Moffitt & Towne
(Division of Carter, Rice & Co. Corp.) Storrs & Bement Co. Storrs & Bement Co. Storrs & Bement Co. Storrs & Bement Co. Bulkley, Dunton & Co., Inc. Green & Low Paper Co., Inc. Kennelly Paper Co., Inc. The Whitaker Paper Co. Oakland, Calif. Oakland, Calif. Blake, Moffitt & Towne Omaha, Neb. Philadelphia, Pa. Wilcox-Walter-Furlong Paper Co. Wilcox-Walter-Furlong Paper Co.
(Division of Carter, Rice & Co. Corp.) Storrs & Bement Co. Storrs & Bement Co. Storrs & Bement Co. Inc. Bulkley, Dunton & Co., Inc. Green & Low Paper Co., Inc. Kennelly Paper Co., Inc. The Whitaker Paper Co. Oakland, Calif. Omaha, Neb. Western Paper Co. Philadelphia, Pa. Atlantic Paper Co. Wilcox-Walter-Furlong Paper Co. Phoenix, Ariz. Phoenix, Ariz. Blake, Mofflit & Towne Blake, Mofflit & Towne Omaha, Neb. Store Blake, Mofflit & Towne
(Division of Carter, Rice & Co. Corp.) Storrs & Bement Co. Storrs & Bement Co. Storrs & Bement Co. Storrs & Bement Co. Bulkley, Dunton & Co., Inc. Green & Low Paper Co., Inc. Kennelly Paper Co., Inc. The Whitaker Paper Co. Oakland, Calif. Omaha, Neb. Western Paper Co. Philadelphia, Pa. Wilcox-Walter-Furlong Paper Co. Phoenix, Ariz. Pittsburgh, Pa. General Paper Co. Brubaker Paper Co. Brubaker Paper Co. Brubaker Paper Co.
(Division of Carter, Rice & Co. Corp.) Storrs & Bement Co. New York, N. Y. Bulkley, Dunton & Co., Inc. Bulkley, Dunton & Co., Inc. Green & Low Paper Co., Inc. Kennelly Paper Co., Inc. The Whitaker Paper Co. Oakland, Calif. Blake, Moffitt & Towne Omaha, Neb. Western Paper Co. Philadelphia, Pa. Atlantic Paper Co. Wilcox-Walter-Furlong Paper Co. Wilcox-Walter-Furlong Paper Co. Phoenix, Ariz. Pittsburgh, Pa. General Paper Co. Brubaker Paper Co. Portland, Maine C. C. H. Robinson Co.
(Division of Carter, Rice & Co. Corp.) Storrs & Bement Co. Storrs & Bement Co. Storrs & Bement Co. Storrs & Bement Co. Bulkley, Dunton & Co., Inc. Green & Low Paper Co., Inc. Kennelly Paper Co., Inc. The Whitaker Paper Co. Oakland, Calif. Omaha, Neb. Philadelphia, Pa. Atlantic Paper Co. Wilcox-Walter-Furlong Paper Co. Phoenix, Ariz. Pittsburgh, Pa. Blake, Moffitt & Towne General Paper Co. Brubaker Paper Co.
(Division of Carter, Rice & Co. Corp.) Storrs & Bement Co. New York, N. Y. Bulkley, Dunton & Co., Inc. Bulkley, Dunton & Co., Inc. Green & Low Paper Co., Inc. Kennelly Paper Co., Inc. The Whitaker Paper Co. Oakland, Calif. Blake, Moffitt & Towne Omaha, Neb. Western Paper Co. Philadelphia, Pa. Atlantic Paper Co. Wilcox-Walter-Furlong Paper Co. Phoenix, Ariz. Blake, Moffitt & Towne Pittsburgh, Pa. General Paper Co. Portland, Maine C. H. Robinson Co. Portland, Oregon Blake, Moffitt & Towne Providence, R. I. Carter, Rice & Co. Corp.
(Division of Carter, Rice & Co. Corp.) Storrs & Bement Co. Storrs & Bement Co. Storrs & Bement Co. Bulkley, Dunton & Co., Inc. Green & Low Paper Co., Inc. Green & Low Paper Co., Inc. Kennelly Paper Co., Inc. The Whitaker Paper Co. Oakland, Calif. Omaha, Neb. Omaha, Neb. Ohiladelphia, Pa. Atlantic Paper Co. Wilcox-Walter-Furlong Paper Co. Blake, Moffitt & Towne Ortland, Ariz. Portland, Maine Ortland, Oregon Providence, R. I. Carter, Rice & Co. Corp. Story Bemon, New Mester Paper Co. Brubaker Paper Co. Brubaker Paper Co. Brubaker Paper Co. C. H. Robinson Co. Portland, Oregon Providence, R. I. Carter, Rice & Co. Corp. Story Bemon, Newada Blake, Moffitt & Towne
(Division of Carter, Rice & Co. Corp.) Storrs & Bement Co. Storrs & Bement Co. Storrs & Bement Co. Bulkley, Dunton & Co., Inc. Green & Low Paper Co., Inc. Green & Low Paper Co., Inc. Kennelly Paper Co., Inc. The Whitaker Paper Co. Oakland, Calif. Omaha, Neb. Omaha, Neb. Ohiladelphia, Pa. Atlantic Paper Co. Wilcox-Walter-Furlong Paper Co. Blake, Moffitt & Towne Ortland, Ariz. Portland, Maine Ortland, Oregon Providence, R. I. Carter, Rice & Co. Corp. Story Bemon, New Mester Paper Co. Brubaker Paper Co. Brubaker Paper Co. Brubaker Paper Co. C. H. Robinson Co. Portland, Oregon Providence, R. I. Carter, Rice & Co. Corp. Story Bemon, Newada Blake, Moffitt & Towne
(Division of Carter, Rice & Co. Corp.) Storrs & Bement Co. New York, N. Y. Bulkley, Dunton & Co., Inc. Bulkley, Dunton & Co., Inc. Green & Low Paper Co., Inc. Kennelly Paper Co., Inc. Kennelly Paper Co., Inc. The Whitaker Paper Co. Oakland, Calif. Omaha, Neb. Omaha, Neb. Western Paper Co. Philadelphia, Pa. Atlantic Paper Co. Wilcox-Walter-Furlong Paper Co. Blake, Moffitt & Towne Pittsburgh, Pa. General Paper Co. Brubaker Paper Co. Brubaker Paper Co. C. H. Robinson Co. Portland, Maine C. C. H. Robinson Co. Portland, Oregon Blake, Moffitt & Towne Richmond, Va. Cauthorne Paper Co. Cauthorne Paper Co. Cauthorne Paper Co.
(Division of Carter, Rice & Co. Corp.) Storrs & Bement Co. New York, N. Y. Bulkley, Dunton & Co., Inc. Bulkley, Dunton & Co., Inc. Green & Low Paper Co., Inc. Kennelly Paper Co., Inc. Kennelly Paper Co., Inc. The Whitaker Paper Co. Oakland, Calif. Omaha, Neb. Omaha, Neb. Western Paper Co. Philadelphia, Pa. Atlantic Paper Co. Wilcox-Walter-Furlong Paper Co. Blake, Moffitt & Towne Pittsburgh, Pa. General Paper Co. Brubaker Paper Co. Brubaker Paper Co. C. H. Robinson Co. Portland, Maine C. C. H. Robinson Co. Portland, Oregon Blake, Moffitt & Towne Richmond, Va. Cauthorne Paper Co. Cauthorne Paper Co. Cauthorne Paper Co.
(Division of Carter, Rice & Co. Corp.) Storrs & Bement Co. Storrs & Bement Co. Storrs & Bement Co. Bulkley, Dunton & Co., Inc. Green & Low Paper Co., Inc. Green & Low Paper Co., Inc. The Whitaker Paper Co. Oakland, Calif. Oakland, Calif. Oakland, Calif. Oakland, Calif. Oakland, Calif. Oakland, Calif. Oakland, Peb. Ohiladelphia, Pa. Atlantic Paper Co. Wilcox-Walter-Furlong Paper Co. Blake, Moffitt & Towne Orolland, Ariz. Phoenix, Ariz. Blake, Moffitt & Towne Orolland, Maine Oct. H. Robinson Co. Portland, Oregon Orolland, Oregon Orolland Oroland Orolland Orolland Orolland Orolland Orolland Orolland Orollan
(Division of Carter, Rice & Co. Corp.) Storrs & Bement Co. New York, N. Y. Bulkley, Dunton & Co., Inc. Bulkley, Dunton & Co., Inc. Green & Low Paper Co., Inc. Kennelly Paper Co., Inc. The Whitaker Paper Co. Oakland, Calif. Omaha, Neb. Western Paper Co. Philadelphia, Pa. Atlantic Paper Co. Wilcox-Walter-Furlong Paper Co. Wilcox-Walter-Furlong Paper Co. Blake, Moffitt & Towne Pittsburgh, Pa. General Paper Co. Brubaker Paper Co. Portland, Maine C. H. Robinson Co. Portland, Oregon Blake, Moffitt & Towne Providence, R. I. Carter, Rice & Co. Corp. Reno, Nevada Blake, Moffitt & Towne Richmond, Va. Cauthorne Paper Co. Rochester, N. Y. Genesee Valley Paper Co. Sacramento, Calif. Blake, Moffit & Towne
(Division of Carter, Rice & Co. Corp.) Storrs & Bement Co. New York, N. Y. Bulkley, Dunton & Co., Inc. Green & Low Paper Co., Inc. The Whitaker Paper Co. Oakland, Calif. Omaha, Neb. Omaha, Neb. Omaha, Neb. Omaha, Neb. Ohiliadelphia, Pa. Atlantic Paper Co. Wilcox-Walter-Furlong Paper Co. Brubaker Paper Co. Brubaker Paper Co. Brubaker Paper Co. Ortland, Maine C. H. Robinson Co. Portland, Oregon Providence, R. I. Carter, Rice & Co. Corp. Reno, Nevada Blake, Moffitt & Towne Providence, R. I. Carter, Rice & Co. Corp. Richmond, Va. Cauthorne Paper Co. Sacramento, Calif. Blake, Moffitt & Towne Richmond, Va. Cauthorne Paper Co. Sacramento, Calif. Blake, Moffitt & Towne Richmond, Va. Cauthorne Paper Co. Blake, Moffitt & Towne Richmond, Va. Cauthorne Paper Co. Blake, Moffitt & Towne Richmond, Va. Cauthorne Paper Co. Blake, Moffitt & Towne Richmond, Va. Carter, Rice & Co. Corp. Blake, Moffitt & Towne Richmond, Va. Cauthorne Paper Co. Blake, Moffitt & Towne Richmond, Va. Carter, Rice & Co. Gressee Valley Paper Co.
(Division of Carter, Rice & Co. Corp.) Storrs & Bement Co. New York, N. Y. Baldwin Paper Co., Inc. Bulkley, Dunton & Co., Inc. Green & Low Paper Co., Inc. He Whitaker Paper Co., Inc. The Whitaker Paper Co. Oakland, Calif. Blake, Moffitt & Towne Omaha, Neb. Western Paper Co. Philadelphia, Pa. Atlantic Paper Co. Wilcox-Walter-Furlong Paper Co. Phoenix, Ariz. Blake, Moffitt & Towne Pittsburgh, Pa. General Paper Co. Brubaker Paper Co. Brubaker Paper Co. Portland, Maine C. H. Robinson Co. Portland, Oregon Blake, Moffitt & Towne Providence, R. I. Carter, Rice & Co. Corp. Reno, Nevada Blake, Moffitt & Towne Richmond, Va. Cauthorne Paper Co. Rochester, N. Y. Genesee Valley Paper Co. Sacramento, Calif. Blake, Moffitt & Towne St. Louis, Mo. Bermingham & Prosser Co. Graham Paper Company Shaughnessy-Kniep-Hawe Paper Co.
(Division of Carter, Rice & Co. Corp.) Storrs & Bement Co. New York, N. Y. Bulkley, Dunton & Co., Inc. Bulkley, Dunton & Co., Inc. Green & Low Paper Co., Inc. Kennelly Paper Co., Inc. Kennelly Paper Co., Inc. The Whitaker Paper Co. Oakland, Calif. Omaha, Neb. Mestern Paper Co. Philadelphia, Pa. Atlantic Paper Co. Wilcox-Walter-Furlong Paper Co. Wilcox-Walter-Furlong Paper Co. Brubaker Paper Co. Blake, Moffitt & Towne Richmond, Va. Cauthorne Paper Co. Sacramento, Calif. Blake, Moffitt & Towne St. Louis, Mo. Bermingham & Prosser Co. Graham Paper Company Shaughnessy-Kniep-Hawe Paper Co. Tobey Fine Papers, Inc.
(Division of Carter, Rice & Co. Corp.) Storrs & Bement Co. Row York, N. Y. Bulkley, Dunton & Co., Inc. Bulkley, Dunton & Co., Inc. Green & Low Paper Co., Inc. He Whitaker Paper Co., Inc. The Whitaker Paper Co. Oakland, Calif. Blake, Moffitt & Towne Omaha, Neb. Western Paper Co. Philadelphia, Pa. Wilcox-Walter-Furlong Paper Co. Phoenix, Ariz. Blake, Moffitt & Towne Pittsburgh, Pa. General Paper Co. Brubaker Paper Co. Brubaker Paper Co. Brubaker Paper Co. Ortland, Maine C. H. Robinson Co. Portland, Oregon Blake, Moffitt & Towne Providence, R. I. Carter, Rice & Co. Corp. Reno, Nevada Blake, Moffitt & Towne Richmond, Va. Cauthorne Paper Co. Rochester, N. Y. Genesee Valley Paper Co. Sacramento, Calif. Blake, Moffitt & Towne St. Louis, Mo. Bermingham & Prosser Co. Graham Paper Company Shaughnessy-Kniep-Hawe Paper Co. Tobey Fine Papers, Inc. San Bernardino, Calif. Blake, Moffitt & Towne
(Division of Carter, Rice & Co. Corp.) Storrs & Bement Co. New York, N. Y. Baldwin Paper Co., Inc. Bulkley, Dunton & Co., Inc. Green & Low Paper Co., Inc. He Whitaker Paper Co., Inc. The Whitaker Paper Co. Oakland, Calif. Blake, Moffitt & Towne Omaha, Neb. Western Paper Co. Philadelphia, Pa. Atlantic Paper Co. Wilcox-Walter-Furlong Paper Co. Phoenix, Ariz. Blake, Moffitt & Towne Pittsburgh, Pa. General Paper Co. Brubaker Paper Co. Ortland, Maine C. C. H. Robinson Co. Portland, Oregon Blake, Moffitt & Towne Providence, R. I. Carter, Rice & Co. Corp. Reno, Nevada Blake, Moffitt & Towne Richmond, Va. Cauthorne Paper Co. Sacramento, Calif. Blake, Moffitt & Towne St. Louis, Mo. Bermingham & Prosser Co. Graham Paper Company Shaughnessy-Kniep-Hawe Paper Co. Tobey Fine Papers, Inc. San Bernardino, Calif. Blake, Moffitt & Towne
(Division of Carter, Rice & Co. Corp.) Storrs & Bement Co. New York, N. Y. Bulkley, Dunton & Co., Inc. Bulkley, Dunton & Co., Inc. Green & Low Paper Co., Inc. Kennelly Paper Co., Inc. The Whitaker Paper Co. Oakland, Calif. Blake, Moffitt & Towne Omaha, Neb. Western Paper Co. Philadelphia, Pa. Atlantic Paper Co. Wilcox-Walter-Furlong Paper Co. Phoenix, Ariz. Blake, Moffitt & Towne Pittsburgh, Pa. General Paper Co. Brubaker Paper Co. Ortland, Maine C. C. H. Robinson Co. Portland, Oregon Blake, Moffitt & Towne Providence, R. I. Carter, Rice & Co. Corp. Reno, Nevada Blake, Moffitt & Towne Richmond, Va. Cauthorne Paper Co. Sacramento, Calif. Blake, Moffitt & Towne St. Louis, Mo. Bermingham & Prosser Co. Graham Paper Company Shaughnessy-Kniep-Hawe Paper Co. San Bernardino, Calif. Blake, Moffitt & Towne San Francisco, Calif. Blake, Moffitt & Towne
(Division of Carter, Rice & Co. Corp.) Storrs & Bement Co. New York, N. Y. Bulkley, Dunton & Co., Inc. Bulkley, Dunton & Co., Inc. Green & Low Paper Co., Inc. He Whitaker Paper Co., Inc. The Whitaker Paper Co. Oakland, Calif. Blake, Moffitt & Towne Omaha, Neb. Western Paper Co. Philadelphia, Pa. Atlantic Paper Co. Wilcox-Walter-Furlong Paper Co. Wilcox-Walter-Furlong Paper Co. Brubaker Paper Co. Brubaker Paper Co. Ortland, Maine General Paper Co. Brubaker Paper Co. Blake, Moffitt & Towne Richmond, Oregon Blake, Moffitt & Towne Richmond, Va. Cauthorne Paper Co. Sacramento, Calif. Blake, Moffitt & Towne St. Louis, Mo. Bermingham & Prosser Co. Graham Paper Company Shaughnessy-Kniep-Hawe Paper Co. San Bernardino, Calif. Blake, Moffitt & Towne San Diego, Calif. Blake, Moffitt & Towne San Francisco, Calif. Blake, Moffitt & Towne San Francisco, Calif. Blake, Moffitt & Towne Slake, Moffitt & Towne
(Division of Carter, Rice & Co. Corp.) Storrs & Bement Co. New York, N. Y. Bulkley, Dunton & Co., Inc. Bulkley, Dunton & Co., Inc. Green & Low Paper Co., Inc. He Whitaker Paper Co., Inc. The Whitaker Paper Co. Oakland, Calif. Blake, Moffitt & Towne Omaha, Neb. Western Paper Co. Philadelphia, Pa. Atlantic Paper Co. Wilcox-Walter-Furlong Paper Co. Wilcox-Walter-Furlong Paper Co. Brubaker Paper Co. Brubaker Paper Co. Ortland, Maine General Paper Co. Brubaker Paper Co. Blake, Moffitt & Towne Richmond, Oregon Blake, Moffitt & Towne Richmond, Va. Cauthorne Paper Co. Sacramento, Calif. Blake, Moffitt & Towne St. Louis, Mo. Bermingham & Prosser Co. Graham Paper Company Shaughnessy-Kniep-Hawe Paper Co. San Bernardino, Calif. Blake, Moffitt & Towne San Diego, Calif. Blake, Moffitt & Towne San Francisco, Calif. Blake, Moffitt & Towne San Francisco, Calif. Blake, Moffitt & Towne Slake, Moffitt & Towne
(Division of Carter, Rice & Co. Corp.) Storrs & Bement Co. Storrs & Bement Co., Inc. Bulkley, Dunton & Co., Inc. Green & Low Paper Co., Inc. He Whitaker Paper Co., Inc. The Whitaker Paper Co. Oakland, Calif. Oakland, Milit. Oakland, Calif. Oakland, Calif. Oakland, Calif.
(Division of Carter, Rice & Co. Corp.) Storrs & Bement Co. New York, N. Y. Bulkley, Dunton & Co., Inc. Bulkley, Dunton & Co., Inc. Green & Low Paper Co., Inc. He Whitaker Paper Co., Inc. The Whitaker Paper Co., Inc. Kennelly Paper Co., Inc. The Whitaker Paper Co. Blake, Moffitt & Towne Western Paper Co. Philadelphia, Pa. Wilcox-Walter-Furlong Paper Co. Phoenix, Ariz. Blake, Moffitt & Towne Pittsburgh, Pa. Brubaker Paper Co. CH. Robinson Co. Portland, Maine C. H. Robinson Co. Portland, Oregon Blake, Moffitt & Towne Richmond, Va. Carter, Rice & Co. Corp. Reno, Nevada Blake, Moffitt & Towne St. Louis, Mo. Bermingham & Prosser Co. Graham Paper Company Shaughnessy-Kniep-Hawe Paper Co. San Bernardino, Calif. Blake, Moffitt & Towne San Francisco, Calif. Blake, Moffitt & Towne San Fose, Calif. Blake, Moffitt & Towne San Fose, Calif. Blake, Moffitt & Towne Seattle, Wash. Blake, Moffitt & Towne Seattle, Wash. Blake, Moffitt & Towne
(Division of Carter, Rice & Co. Corp.) Storrs & Bement Co. New York, N. Y. Baldwin Paper Co., Inc. Bulkley, Dunton & Co., Inc. Green & Low Paper Co., Inc. He Whitaker Paper Co., Inc. The Whitaker Paper Co. Oakland, Calif. Blake, Moffitt & Towne Omaha, Neb. Western Paper Co. Philadelphia, Pa. Atlantic Paper Co. Philadelphia, Pa. Atlantic Paper Co. Blake, Moffitt & Towne Pittsburgh, Pa. General Paper Co. Brubaker Paper Co. Brubaker Paper Co. Portland, Maine C. H. Robinson Co. Portland, Oregon Blake, Moffitt & Towne Providence, R. I. Carter, Rice & Co. Corp. Reno, Nevada Blake, Moffitt & Towne Richmond, Va. Cauthorne Paper Co. Rochester, N. Y. Genesee Valley Paper Co. Sacramento, Calif. Blake, Moffitt & Towne St. Louis, Mo. Bermingham & Prosser Co. Graham Paper Company Shaughnessy-Kniep-Hawe Paper Co. San Bernardino, Calif. Blake, Moffitt & Towne San Diego, Calif. Blake, Moffitt & Towne San Francisco, Calif. Blake, Moffitt & Towne San Francisco, Calif. Blake, Moffitt & Towne San Francisco, Calif. Blake, Moffitt & Towne San Jose, Calif. Blake, Moffitt & Towne San Hong, Marker Marker, Blake, Moffitt & Towne Santher, Marker, Blake, Moffitt & Towne South Bend, Ind. Blake, Moffitt & Towne Spokane, Wash. Blake, Moffitt & Towne
(Division of Carter, Rice & Co. Corp.) Storrs & Bement Co., Inc. Bulkley, Dunton & Co., Inc. Green & Low Paper Co., Inc. Heart & Co., Inc. Green & Low Paper Co., Inc. Green & Low Paper Co., Inc. Kennelly Paper Co., Inc. The Whitaker Paper Co. Oakland, Calif. Omaha, Neb. Western Paper Co. Philadelphia, Pa. Atlantic Paper Co. Wilcox-Walter-Furlong Paper Co. Wilcox-Walter-Furlong Paper Co. Brubaker Paper Co. Brubaker Paper Co. Octivation of the Company o
(Division of Carter, Rice & Co. Corp.) Storrs & Berment Co. New York, N. Y. Baldwin Paper Co., Inc. Bulkley, Dunton & Co., Inc. Green & Low Paper Co., Inc. He Whitaker Paper Co., Inc. Kennelly Paper Co., Inc. The Whitaker Paper Co. Oakland, Calif. Blake, Moffitt & Towne Omaha, Neb. Western Paper Co. Philadelphia, Pa. Atlantic Paper Co. Wilcox-Walter-Furlong Paper Co. Phoenix, Ariz. Blake, Moffitt & Towne Pittsburgh, Pa. General Paper Co. Brubaker Paper Co. Portland, Maine C. H. Robinson Co. Portland, Oregon Blake, Moffitt & Towne Providence, R. I. Carter, Rice & Co. Corp. Reno, Nevada Blake, Moffitt & Towne Richmond, Va. Cauthorne Paper Co. Rochester, N. Y. Genesee Valley Paper Co. Sacramento, Calif. Blake, Moffitt & Towne St. Louis, Mo. Bermingham & Prosser Co. Graham Paper Company Shaughnessy-Kniep-Hawe Paper Co. San Bernardino, Calif. Blake, Moffitt & Towne San Diego, Calif. Blake, Moffitt & Towne San Diego, Calif. Blake, Moffitt & Towne San Dolego, Calif. Blake, Moffitt & Towne San Jose, Calif. Blake, Moffitt & Towne San Jose, Calif. Blake, Moffitt & Towne South Bend, Ind. Bermingham & Prosser Co. Spokane, Wash. Blake, Moffitt & Towne Springfield, Mass. Blake, Dunton & Co. (Division of Carter, Rice & Co. Corp.)
(Division of Carter, Rice & Co. Corp.) Storrs & Bement Co. New York, N. Y. Bulkley, Dunton & Co., Inc. Bulkley, Dunton & Co., Inc. Green & Low Paper Co., Inc. He Whitaker Paper Co., Inc. The Whitaker Paper Co. Oakland, Calif. Blake, Moffitt & Towne Omaha, Neb. Western Paper Co. Philadelphia, Pa. Atlantic Paper Co. Wilcox-Walter-Furlong Paper Co. Phoenix, Ariz. Blake, Moffitt & Towne Pittsburgh, Pa. General Paper Co. Brubaker Paper Co. Ortland, Maine C. C. H. Robinson Co. Portland, Oregon Blake, Moffitt & Towne Providence, R. I. Carter, Rice & Co. Corp. Reno, Nevada Blake, Moffitt & Towne Richmond, Va. Carter, Rice & Co. Corp. Reno, Nevada Blake, Moffitt & Towne Richmond, Va. Cauthorne Paper Co. Sacramento, Calif. Blake, Moffitt & Towne St. Louis, Mo. Bermingham & Prosser Co. Graham Paper Company Shaughnessy-Kniep-Hawe Paper Co. San Bernardino, Calif. Blake, Moffitt & Towne San Diego, Calif. Blake, Moffitt & Towne San Francisco, Calif. Blake, Moffitt & Towne
(Division of Carter, Rice & Co. Corp.) New York, N. Y. Baldwin Paper Co., Inc. Bulkley, Dunton & Co., Inc. Green & Low Paper Co., Inc. He Whitaker Paper Co., Inc. Kennelly Paper Co., Inc. The Whitaker Paper Co., Inc. He Whitaker Paper Co. Blake, Moffitt & Towne Western Paper Co. Philadelphia, Pa. Atlantic Paper Co. Wilcox-Walter-Furlong Paper Co. Phoenix, Ariz. Blake, Moffitt & Towne Pittsburgh, Pa. General Paper Co. Brubaker Paper Co. Brubaker Paper Co. Brubaker Paper Co. Brubaker Paper Co. Portland, Maine C. H. Robinson Co. Portland, Oregon Blake, Moffitt & Towne Providence, R. I. Carter, Rice & Co. Corp. Reno, Nevada Blake, Moffitt & Towne Richmond, Va. Cauthorne Paper Co. Rochester, N. Y. Genesee Valley Paper Co. Sacramento, Calif. Blake, Moffitt & Towne St. Louis, Mo. Bermingham & Prosser Co. Graham Paper Company Shaughnessy-Kniep-Hawe Paper Co. San Bernardino, Calif. Blake, Moffitt & Towne San Francisco, Calif. Blake, Moffitt & Towne
(Division of Carter, Rice & Co. Corp.) New York, N. Y. Baldwin Paper Co., Inc. Bulkley, Dunton & Co., Inc. Green & Low Paper Co., Inc. He Whitaker Paper Co., Inc. Kennelly Paper Co., Inc. The Whitaker Paper Co., Inc. He Whitaker Paper Co. Blake, Moffitt & Towne Western Paper Co. Philadelphia, Pa. Atlantic Paper Co. Wilcox-Walter-Furlong Paper Co. Phoenix, Ariz. Blake, Moffitt & Towne Pittsburgh, Pa. General Paper Co. Brubaker Paper Co. Brubaker Paper Co. Brubaker Paper Co. Brubaker Paper Co. Portland, Maine C. H. Robinson Co. Portland, Oregon Blake, Moffitt & Towne Providence, R. I. Carter, Rice & Co. Corp. Reno, Nevada Blake, Moffitt & Towne Richmond, Va. Cauthorne Paper Co. Rochester, N. Y. Genesee Valley Paper Co. Sacramento, Calif. Blake, Moffitt & Towne St. Louis, Mo. Bermingham & Prosser Co. Graham Paper Company Shaughnessy-Kniep-Hawe Paper Co. San Bernardino, Calif. Blake, Moffitt & Towne San Francisco, Calif. Blake, Moffitt & Towne
(Division of Carter, Rice & Co. Corp.) New York, N. Y. Baldwin Paper Co., Inc. Bulkley, Dunton & Co., Inc. Green & Low Paper Co., Inc. He Whitaker Paper Co., Inc. Kennelly Paper Co., Inc. The Whitaker Paper Co., Inc. He Whitaker Paper Co. Blake, Moffitt & Towne Western Paper Co. Philadelphia, Pa. Atlantic Paper Co. Wilcox-Walter-Furlong Paper Co. Phoenix, Ariz. Blake, Moffitt & Towne Pittsburgh, Pa. General Paper Co. Brubaker Paper Co. Brubaker Paper Co. Brubaker Paper Co. Brubaker Paper Co. Portland, Maine C. H. Robinson Co. Portland, Oregon Blake, Moffitt & Towne Providence, R. I. Carter, Rice & Co. Corp. Reno, Nevada Blake, Moffitt & Towne Richmond, Va. Cauthorne Paper Co. Rochester, N. Y. Genesee Valley Paper Co. Sacramento, Calif. Blake, Moffitt & Towne St. Louis, Mo. Bermingham & Prosser Co. Graham Paper Company Shaughnessy-Kniep-Hawe Paper Co. San Bernardino, Calif. Blake, Moffitt & Towne San Francisco, Calif. Blake, Moffitt & Towne
(Division of Carter, Rice & Co. Corp.) Storrs & Bement Co. New York, N. Y. Baldwin Paper Co., Inc. Bulkley, Dunton & Co., Inc. Green & Low Paper Co., Inc. He Whitaker Paper Co., Inc. Kennelly Paper Co., Inc. Kennelly Paper Co., Inc. He Whitaker Paper Co. Blake, Moffitt & Towne Omaha, Neb. Western Paper Co. Philadelphia, Pa. Atlantic Paper Co. Phoenix, Ariz. Blake, Moffitt & Towne Pittsburgh, Pa. General Paper Co. Brubaker Paper Co. Brubaker Paper Co. Portland, Maine C. H. Robinson Co. Portland, Oregon Blake, Moffitt & Towne Providence, R. I. Carter, Rice & Co. Corp. Reno, Nevada Blake, Moffitt & Towne Richmond, Va. Cauthorne Paper Co. Rochester, N. Y. Genesee Valley Paper Co. Sacramento, Calif. Blake, Moffitt & Towne St. Louis, Mo. Bermingham & Prosser Co. Graham Paper Company Shaughnessy-Kniep-Hawe Paper Co. San Bernardino, Calif. Blake, Moffitt & Towne San Francisco, Calif. Blake, Moffitt & Towne San Francisco, Calif. Blake, Moffitt & Towne San Jose, Calif. Blake, Moffitt & Towne San Jose, Calif. Blake, Moffitt & Towne Seattle, Wash. Blake, Moffitt & Towne South Bend, Ind. Springfield, Mass. Bulkley, Dunton & Co. (Division of Carter, Rice & Co. Corp.) Mill Brand Papers Paper House of New England Stockton, Calif. Blake, Moffitt & Towne Bulkley, Dunton & Co. (Division of Carter, Rice & Co. Corp.) Mill Brand Papers Paper House of New England Blake, Moffitt & Towne Blake, Moffitt & Towne
(Division of Carter, Rice & Co. Corp.) Storrs & Bement Co. Rolkley, Dunton & Co., Inc. Bulkley, Dunton & Co., Inc. Green & Low Paper Co., Inc. How Paper Co., Inc. Green & Low Paper Co., Inc. How Paper Co., Inc. Kennelly Paper Co., Inc. How Paper Co. How Paper Co. How Paper Co. How Paper Co. Philadelphia, Pa. How Paper Co. Wilcox-Walter-Furlong Paper Co. Phoenix, Ariz. Blake, Moffit & Towne Pittsburgh, Pa. Blake, Moffit & Towne Portland, Oregon Portland, Oregon Blake, Moffit & Towne Providence, R. I. Carter, Rice & Co. Corp. Reno, Nevada Blake, Moffit & Towne Richmond, Va. Cauthorne Paper Co. Rochester, N. Y. Genesee Valley Paper Co. Sacramento, Calif. Blake, Moffit & Towne St. Louis, Mo. Bermingham & Prosser Co. Graham Paper Company Shaughnessy-Kniep-Hawe Paper Co. Tobey Fine Papers, Inc. San Bernardino, Calif. Blake, Moffit & Towne San Diego, Calif. Blake, Moffit & Towne Seattle, Wash Blake, Moffit & Towne Seattle, Wash Blake, Moffit & Towne Seattle, Wash Blake, Moffit & Towne South Bend, Ind. Bermingham & Prosser Co. Blake, Moffit & Towne Seattle, Wash Blake, Moffit & Towne South Bend, Ind. Bermingham & Prosser Co. Mill Brand Paper Mill Brand Paper Paper House of New England Stockton, Calif. Blake, Moffit & Towne Bulkley, Dunton & Co. Pivision of Carter, Rice & Co. Corp. Mill Brand Paper Paper House of New England Blake, Moffit & Towne Blake, Moffit & Towne Blake, Moffit & Towne Bulkley, Dunton & Co. Portender Paper Merchants, Inc.
(Division of Carter, Rice & Co. Corp.) Storrs & Bement Co. New York, N. Y. Bulkley, Dunton & Co., Inc. Bulkley, Dunton & Co., Inc. Green & Low Paper Co., Inc. Kennelly Paper Co., Inc. Kennelly Paper Co., Inc. The Whitaker Paper Co. Oakland, Calif. Omaha, Neb. Western Paper Co. Philadelphia, Pa. Atlantic Paper Co. Wilcox-Walter-Furlong Paper Co. Blake, Moffitt & Towne Pittsburgh, Pa. General Paper Co. Brubaker Paper Co. Brubaker Paper Co. Brubaker Paper Co. C. H. Robinson Co. Portland, Maine C. C. H. Robinson Co. Portland, Oregon Blake, Moffitt & Towne Richmond, Va. Carter, Rice & Co. Corp. Reno, Nevada Blake, Moffitt & Towne Richmond, Va. Sacramento, Calif. St. Louis, Mo. Bermingham & Prosser Co. Graham Paper Company Shaughnessy-Kniep-Hawe Paper Co. San Bernardino, Calif. Blake, Moffitt & Towne San Diego, Calif. Blake, Moffitt & Towne San Francisco, Calif. Blake, Moffitt & Towne San Berningham & Prosser Co. (Division of Carter, Rice & Co. Corp.) Mill Brand Papers Paper House of New England Stockton, Calif. Blake, Moffitt & Towne Slake, Moffitt & Towne Springfield, Mass. Bulkley, Dunton & Co. (Division of Carter, Rice & Co. Corp.) Mill Brand Papers Paper House of New England Stockton, Calif. Blake, Moffitt & Towne Tacoma, Wash. Blake, Moffitt & Towne Paper House of New England Stockton, Calif. Blake, Moffitt & Towne Blake, Moffitt & Towne Toledo, Ohio Paper House of New England Stockton, Calif. Blake, Moffitt & Towne Toledo, Ohio Paper House of New England Stockton, Ariz. Blake, Moffitt & Towne
(Division of Carter, Rice & Co. Corp.) Storrs & Berment Co. New York, N. Y. Baldwin Paper Co., Inc. Bulkley, Dunton & Co., Inc. Green & Low Paper Co., Inc. He Whitaker Paper Co., Inc. Kennelly Paper Co., Inc. The Whitaker Paper Co. Oakland, Calif. Blake, Moffitt & Towne Philadelphia, Pa. Atlantic Paper Co. Phoenix, Ariz. Blake, Moffitt & Towne Pittsburgh, Pa. General Paper Co. Protland, Maine General Paper Co. Brubaker Paper Co. Portland, Oregon Blake, Moffitt & Towne Providence, R. I. Carter, Rice & Co. Corp. Reno, Nevada Blake, Moffitt & Towne Richmond, Va. Cauthorne Paper Co. Rochester, N. Y. Genesee Valley Paper Co. Sacramento, Calif. Blake, Moffitt & Towne St. Louis, Mo. Bermingham & Prosser Co. Graham Paper Company Shaughnessy-Kniep-Hawe Paper Co. San Bernardino, Calif. Blake, Moffitt & Towne San Diego, Calif. Blake, Moffitt & Towne San Bernardino, Calif. Blake, Moffitt & Towne South Bend, Ind. Bermingham & Prosser Co. Spokane, Wash. Blake, Moffitt & Towne South Bend, Ind. Bermingham & Prosser Co. Spokane, Wash. Blake, Moffitt & Towne South Bend, Ind. Bermingham & Prosser Co. Division of Carter, Rice & Co. Corp.) Mill Brand Paper Stockton, Calif. Blake, Moffitt & Towne Stockton, Calif. Blake, Moffitt & Towne Stockton, Calif. Blake, Moffitt & Towne Paper House of New England Stockton, Calif. Blake, Moffitt & Towne Paper Merchants, Inc. Tucson, Ariz. Blake, Moffitt & Towne Mashington, D. C. John Floyd Paper Company
(Division of Carter, Rice & Co. Corp.) Storrs & Bement Co. New York, N. Y. Bulkley, Dunton & Co., Inc. Bulkley, Dunton & Co., Inc. Green & Low Paper Co., Inc. Kennelly Paper Co., Inc. Kennelly Paper Co., Inc. The Whitaker Paper Co. Oakland, Calif. Omaha, Neb. Western Paper Co. Philadelphia, Pa. Atlantic Paper Co. Wilcox-Walter-Furlong Paper Co. Blake, Moffitt & Towne Pittsburgh, Pa. General Paper Co. Brubaker Paper Co. Brubaker Paper Co. Brubaker Paper Co. C. H. Robinson Co. Portland, Maine C. C. H. Robinson Co. Portland, Oregon Blake, Moffitt & Towne Richmond, Va. Carter, Rice & Co. Corp. Reno, Nevada Blake, Moffitt & Towne Richmond, Va. Sacramento, Calif. St. Louis, Mo. Bermingham & Prosser Co. Graham Paper Company Shaughnessy-Kniep-Hawe Paper Co. San Bernardino, Calif. Blake, Moffitt & Towne San Diego, Calif. Blake, Moffitt & Towne San Francisco, Calif. Blake, Moffitt & Towne San Berningham & Prosser Co. (Division of Carter, Rice & Co. Corp.) Mill Brand Papers Paper House of New England Stockton, Calif. Blake, Moffitt & Towne Slake, Moffitt & Towne Springfield, Mass. Bulkley, Dunton & Co. (Division of Carter, Rice & Co. Corp.) Mill Brand Papers Paper House of New England Stockton, Calif. Blake, Moffitt & Towne Tacoma, Wash. Blake, Moffitt & Towne Paper House of New England Stockton, Calif. Blake, Moffitt & Towne Blake, Moffitt & Towne Toledo, Ohio Paper House of New England Stockton, Calif. Blake, Moffitt & Towne Toledo, Ohio Paper House of New England Stockton, Ariz. Blake, Moffitt & Towne

Baldwin Joins William Recht

William Recht, president of Gaetjens, Berger & Wirth, Inc. and William Recht Co., N. Y., has announced that former Congressman Joseph Clark Baldwin has joined the company. Mr. Baldwin recently returned from Europe.

Boston Craftsmen in Golf Tourney

Lithographers, letterpressmen, and printing supply and equipment members of the Boston Club of Printing House Craftsmen held their third annual "TEE" Party, July 28, at the Woodland Golf Club, Auburndale, Mass. The program included golf, 18 holes; putting, nine holes; horseshoes; lunch at the 19th hole; and dinner. The Annual Award amounted to \$400.00 worth of golf equipment. Prizes included the President's Cup, for the lowest score and the William P. Barta Memorial Trophy for low net.

New York Lithographer Dies

E. Russel Palmer, of the lithograph firm of Palmer Associates, New York, died June 30 at his Great Neck, Long Island home. He was 66. He came to New York 20 years ago to join Palmer Associates.

Kienle Opens New Factory

Kienle & Co., New York, moved into a new modern factory in Huntington, New York, last month. The building is a single story, face-brick, steel and cast-stone structure 300 feet long by 162 feet wide.

Why a Rise in Paper Prices?

Concurrently with the announcement of a general increase in the price of its various paper products, S. D. Warren Co. has issued a three page letter of explanation to its distributors.

Citing the advance in the price of purchased pulp, increased taxes in mill communities, recent wage increases, and further raw material price advances still to come (touched off by the automobile wage settlement), George Olmstead, Jr., president, emphasized that all manufacturing concerns in whatever line of business are making a determined

LNA Golf Winners, Contributors

Following is a complete list of winners in the annual LNA golf tournament, held during the recent convention in Lake Placid, N. Y.:

Women's Prizes: Low gross (handicap under 15) — 1st, Mrs. J. L. Kronenberg (94); 2nd, Mrs. George Thompson; 3rd, Mrs. M. S. Burroughs. Low gross (handicap 15 and over)—1st, Mrs. Edward McSweeney (98); 2nd, Mrs. Charles W. Weis; 3rd, Mrs. W. F. Carroll. Kickers (handicap 70-80)—1st, Mrs. James S. Armitage (73); 2nd, Miss Joan Weis; 3rd, Mrs. Gavin Clark. Putting—1st, Mrs. W. N. Davies (33); 2nd, Mrs. John M. Wolff Jr.; 3rd, Mrs. Gordon Hall.

Men's Prizes: Warren C. Browne Memorial (average gross score)-1st, W. N. Davies and Lawrence Littman, tied with 97.2. Traung Memorial-B. P. Nilles (67). Putting-1st, William Dear (34): 2nd, M. S. Burroughs; 3rd, Gordon Hall. Kickers (handicap 70-80) - 1st, Ralph J. Wrenn; 2nd, C. D. Kayser; 3rd, R. R. Heywood (tied with C. D. Kayser, R. R. Heywood, R. R. Heywood Jr., C. S. Richmond, R. J. Wrenn and C. R. Gregory). Low Net (age 50 and under-1st, William P. Gildea; 2nd, F. J. Jeuck; 3rd, Thomas Stevenson, Low Net (age 50 and over)-lst, Gerald Mathison (70); 2nd, George McSweeney; 3rd, Carl N. Reed. Low Gross-William Dear (72); 2nd, W. L. Hutchings; 3rd, Paul H. Lyle tied with R. A. Kliner.

Gerald W. Mathison headed the golf committee. Serving with him were Robert R. Heywood Jr., Leonard H. Knopf and Gordon C. Hall.

Contributors to the Suppliers Social Activities Committee, which sponsored three social hours, included the following:

American Roller Co., Chicago; American Type Founders, Inc., Elizabeth, N. J.; Bingham Bros. Co., New York; California Ink Co., San Francisco; Champion Paper & Fibre Co., Hamilton, O.; Chicago Litho Plate Graining Co., Chicago: Consolidated International Equipment & Supply Co., Chicago; Crescent Ink & Color Co., Philadelphia; Dexter Folder Co., New York; E. I. DuPont de Nemours & Co., Wilmington, Del.; Eastern Corp., Bangor, Me.; Eastman Kodak Co., Rochester, N. Y.; Howard Flint Ink Co., Detroit; Gaetjens, Berger & Wirth, Inc., Chicago; Gaetjens, Berger & Wirth, Inc., New York; Gegenheimer, William, Brooklyn; Gilbert Paper Co., Menasha, Wisc.; Godfrey Roller Co., Philadelphia; Graphic Arts Corp. of Ohio, Toledo, O.; Graphic Arts Monthly, Chicago; A. E. Handschy Co., Chicago; Harris-Seybold Co., Cleveland: R. Hoe & Co.: New York: Ideal Roller & Mfg. Co., Chicago; Illinois Zinc Co., New York; Interchemical Corp., New York; Kohl & Madden, Chicago; George LaMonte & Son, Inc., Nutley, N. J.; E. P. Lawson Co., New York; Litho Chemical & Supply Co., Inc., Long Island, N. Y.; McKinley Litho Supply Co., Cincinnati; Miehle Printing Press & Mfg. Co., Chicago; The Miller Printing Mach. Co., Pittsburgh; Lithography, Caldwell, Modern N. J.; National Cover & Mfg. Co., St. Louis; National Lithographer, New York; Newton Falls Paper Mills; Nygren-Dahly Co., Inc., Chicago; B. Offen & Co., Chicago; Offset Engravers Associates, Inc., New York: The Harold M. Pitman Co., North Bergen, N. J.; Printing Developments, Inc., New York: Rapid Roller Co., Chicago; The Rathbun & Bird Co., New York; Lewis Roberts, Inc., Newark, N. J.; Roberts & Porter, Inc., Chicago; Sinclair & Carroll Co., Inc., New York; Sinclair & Valentine Co., New York; Sleight & Hellmuth, Inc., Chicago; Stevenson Photo Color Separation Co., Cincinnati; Geo. R. Swart & Son, New York; Walden, Sons & Mott, Inc., New York; West Virginia Pulp & Paper Co., Chevy Chase, Md.

effort to keep costs down by increasing productivity per man hour. Since 1946, he said, S. D. Warren has spent 25 million dollars on equipment and facilities, primarily in an effort to make operations more efficient.

"But the inflationary trend has progressed faster than we could achieve counter-balancing economies," he continued. "Hence, from time to time, we have been forced to raise our prices."

Gevaert GA Manager Dies

G. A. Hoeppner, manager of the graphic arts division of Gevaert Co. of America, died July 9. Mr. Hoeppner, who was 64, had been with Gevaert for 26 years.

THIS IS | THE POINT

Windsor & Newton's

Series

"ALBATA"

Brushes for Lithographic Use

Californian Distributors: SCHWABACHER-FREY CO .: SAN FRANCISCO

Canadian Agents: THE HUGHES OWENS CO., LTD., HEAD OFFICE: MONTREAL

Finest Pure Red Sable Brush especially suited for lithographic uses and retouching. Highest durability, litho strength and fine point-even when used with coarse pigments. Available in sizes 000 through 14.



902 BROADWAY, NEW YORK 10, N.Y.

ONE SOLUTION PRESS K The ONE WASH-UP Miracle Liquid! Immediately disintegrates ink upon contact. Saves you money on every wash-up . . . reduces "press idle" time . . . speeds ONLY production. Eliminates several wash-up solutions. Cleans cleaner . . . faster! SAFEI Will not damage rollers or plates. No harmful, toxic fumes; has a pleasant odor. High flash-point meets safety requirements. WASH GUARANTEED . . . OR YOUR MONEY BACK Order a gallon can today, only \$3.50 . . . try it on your presses. If you are not completely satisfied, return the unused portion and we will refund your money. Available in 1, 5, 30 and 50 gallon containers. UP NEEDED Manufacturers of Fine Letterpress and Offset Printing Inks and Pressroom Supplies CHICAGO 7, ILL., 125 SOUTH RACINE AVENUE MINNEAPOLIS 15, MINN., 422 S. THIRD ST. INDIANAPOLIS 2, IND., 528 N. FULTON ST. DISTRIBUTORS in All Principal Cities. Write for address of Distributor nearest you.

Taxes on Graphic Arts Defeated

Illinois printers and lithographers led by the Graphic Arts Association of Illinois, succeeded in killing provisions of various revenue raising bills that would have added more than \$10,000,000 to the industry's tax bills for the next two years.

Chief victory, according to O. H. Runyan, legislative representative of GAA, was an amendment to the administration's principal revenue raising measure which exempts printers and other service businesses from the sales tax that was otherwise increased from 2 to $2\frac{1}{2}$ percent and permitted cities to take another half cent, if desired, for local government use. This was the third time that the state's effort to levy the sales tax on printed products has failed.

Another important revenue measure was a "use tax" bill, which, as originally drawn, levied a tax on any commodity purchased cutside the state for use in Illinois. Original purpose of this was to discourage evasion of the state cigarette stamp tax by purchasing supplies across the state line. Graphic Arts Association succeeded in having this bill amended to specifically exclude paper, ink and other printing supplies.

A bill which proposed to establish 75 cents as the minimum hourly wage for all labor throughout the state, and allowed the state director of labor to examine any businessman's books and raise wages there if, in his judgment, this was deemed advisable, was defeated.

Also killed was a bill which would have required any businessman who paid his employees by check to have available, on pay day, sufficient money to cash the worker's checks.

Guild Opens Emblem Contest

The Printers Supply Salesmen's Guild of New York, Inc. has announced a contest for the design of a new emblem for the organization. There will be three prizes in the contest, open to all designers and artists. First prize—\$25, second prize—\$10, and third prize—\$5. Board of judges will include: Myron Jonas, public relations chairman of

the Guild; Ralph Specce, president of Howard O. Bullard, Inc.; and Roy Sandvik, sales manager of Vandercook & Sons.

Rules of the contest:

1) Designs must contain the following copy: P.S.S.G. of New York, Inc.; 2) Contestants may submit as many designs as they wish; 3) Each design must be drawn on an $3\frac{1}{2}$ x 11 sheet; 4) Designs may be for one or two colors; 5) Place name, address and business affiliation on back of design; 6) Submit to Myron Jonas, c/o Myron Jonas Company, 154 Nassau Street, New York 38, N. Y.; 7) Contest closes on October 15th, 1955; 8) Winners will be announced at the Guild meeting Nov. 10, 1955; 9) Judges' decision is final.

Grogan, Litho Teacher, Dies

Charles A. Grogan, instructor of lithography at the Murray Hill Evening Trade School, New York, from 1918 to 1945, died June 26 in New York. Mr. Grogan, who was 78, had been a lithographer with U. S. printing and Lithographing Co., Offset Gravure Co., and National Process Co. For 18 years, he was a salesman for Fuchs & Lang Manufacturing Co. (division of Sun Chemical Corp.).

Chicago Considers Billboard Ban

Lithographers specializing in poster production are closely following proposed plans of a Chicago council committee to eliminate bill-boards, electric signs and other out-door advertising along several super expressways now under construction from the downtown business district to the city limits.

A proposed ordinance would prohibit signs within 400 feet of the new highways and in addition several size limitations would be imposed on any sign readable from the roadways, even though located beyond the 400 foot limit. Another proposal under consideration by the committee would prohibit billboards and signs in all areas zoned for residential areas. Chief spokesman for poster advertisers in this controversy is General Outdoor Advertising Co.

Trade Events

International Association of Printing House Craftsmen, Inc., annual convention, Aug. 7-10, Hotel Netherland Plaza, Cincinnati.

Screen Process Printing Association, International, annual convention, Sept. 10-14, Atlantic City.

Direct Mail Advertising Association, 38th annual convention, Sept. 12-14, Morrison Hotel, Chicago.

National Assn. of Photo-Lithographers, annual convention and exhibits. September 21-24, Statler Hotel, Cleveland.

Canadian Lithographers' Association, annual convention, Sept. 25-28, Seigniory Club, Montebello, Quebec. National Metal Decorators Association annual convention, Oct. 10-12, Chalfonte-Haddon Hall, Atlantic City, N. J.

Printing Industry of America, annual convention, Oct. 15-20, Chalfonte-Haddon Hall, Atlantic City, N. J. National Packaging Exposition, 25th annual showing, April 9-12, Convention Hall, Atlantic City, N. J.

Litho Schools

CANADA—Ryerson Institute of Technology, School of Graphic Arts, 50 Gould St., Toronto, Ont., Canada.

CHICAGO—Chicago Lithographic Institute, Glessner House, 1800 S. Prairie Ave., Chicago 16, III.

CINCINNATI-Ohio Mechanics Institute, Cincinnati,

LOS ANGELES—Los Angeles Trade Technical Junior College, 1646 S. Olive St., Los Angeles 15, Call. MINNEAPOLIS—Dunwoody Industrial Institute, 828 Wayzata Biva., Minneapolis 3, Minn.

NASHVILLE-Southern School of Printins, 1514 South St., Nashville, Tenn.

NEW YORK—New York Trade School, Lithographie Department, 312 East 67 St., New York, N. Y.

OKLAHOMA—Oklahoma A & M Technical School, Graphic Arts Dept., Okmulgee, Okla.

ROCHESTER—Rochester Institute of Technology, Dept. of Publishing & Printing, 65 Plymouth Ave., South Rochester 8, N. Y.

PHILADELPHIA—Murrell Dobbins Vocational School, 22nd and Lehigh, Philadelphia, Pa.

PITTSBURGH—Carnegie Institute of Technology, Dept. of Printing Administration, Pittsburgh. SAN FRANCISCO—City College of San Francisce, Ocean and Phelan Aves., Graphic Arts Department.

Ocean and Phelan Aves., Graphic Arts Department. ST. LOUIS—David Ranken, Jr. School of Mechanical Trades, 4431 Finney St., St. Louis 8, Mo. VANCOUVER—Clark College.

WEST VIRGINIA—W. Va. Institute of Technology, Montgomery, W. Va.

Trade Directory

Lithographic Tech. Foundation Wade E. Griswold, Exec. Dir. 131 East 39 St., New York 16, N. Y.

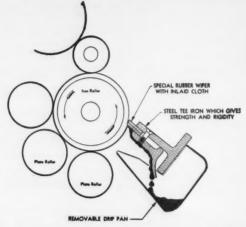
National Association of Photo-Lithographers Walter E. Soderstrom, Exec. V.-P. 317 West 45 St., New York 36, N. Y.

Lithographers National Association W. Floyd Maxwell, Exec. Dir. 420 Lexington Ave., New York 17, N. Y.

National Assn. of Litho Clubs Frank H. Mortimer, Secy. 5917 33rd St., N. W. Washington 15, D. C.

Printing Industry of America James R. Brackett, Gen. Mgr. 719 15th St., N. W. Washington 5, D. C. International Assn. of Printing House Craftsmen P. E. Oldt, Exec. Sec'y. 307 E. Fourth St., Cincinnati 2.

Are You Interested in the CLEANEST and Most Complete Press Washup in the SHORTEST POSSIBLE TIME?



Then you will want the International Press Cleaner, which time has proven to be the best.

We now manufacture efficient cleaners for the following makes of presses — Harris Offset and Rotary, Miehle Offset and Rotary, Hoe Tin Decorating, Ebco and Webendorfer.

Leading lithographers, and metal decorating establishments have made our cleaners standard equipment in their pressrooms.

We are ready and willing to back up our claims with a 30 Day Trial of our cleaners. Write and let us know the size and make of your press.

THE INTERNATIONAL PRESS CLEANER & MFG. CO.

112 HAMILTON AVENUE

CLEVELAND 14, OHIO

Does "SPEED-O-GRAPH" SIZES non-clogging Graphic Arts MEDIUM • POSTPAID

SATISFACTION GUARANTEED or your money refunded!

Saves Valuable Time on all these operations:

- OUTLINING
- MASKING
- RETOUCHING
- **OPAQUING**
- MARKING
- RULING MAKES CLEAN, EVEN-WIDTH LINES on any

surface:

Glass, Acetate, Metal, Celluloid, Vinyl, Glossy Photos, Negatives, Paper.

THE ONLY **AUTOMATIC PEN** on the market that uses:

Opaque Inks • India Ink • Masking Ink • Retouching Solution and other Heavy Fluids

SPEED dozens of art jobs with this versatile, automatic - feed pen - specially designed for precision Graphic Arts work. Long-lasting ink supply saves refilling . . . eliminates time-consuming Gives smooth, perfectly brush work. controlled flow WITHOUT CLOGGING.

ORDER NOW -Specify point width. Send check with order, or references for open account. Satisfaction guaranteed.

GENERAL PLATE MAKERS SUPPLY CO.

5441 N. Kedzie Ave.

Ph-IN 3-2411

Chicago 25, III.

Butler with Bensing Bros.

Robert J. Butler, previously vice president and general manager of C. O. Monk, Inc., Baltimore, Md., has joined Bensing Bros. & Deeney, Philadelphia, Pa., as a member of the company's letterpress-lithographic ink division, sales-service staff. Mr. Butler has also been associated with Sun Chemical Corp.'s Fuchs and Lang and General Printing Ink divisions, and with Sinclair & Valentine.

Lithographer to Defend Golf Honor

Michael Pope, 20-year-old lithographer of Hedstrom-Barry Co., Chicago, will defend the golf championship he won in 1954, at the fourth annual Chicago Printing Industry Championship Golf Tournament, August 23, at St. Andrews Golf Club. Previous winners were Lawson Ware, Interchemical Corp., 1952, Walker Millner, Millar Publishing Co., 1953. Others entered in this year's contest include Gordon Monsen, Monsen-Chicago; Sam Alpert, Advance Finishing Co.; Jack Stout and Sam Stout, Jr., Samuel C. Stout, Co.; Arthur Melnikoff, Chicago Rotogravure; Joseph Blanton, American Colortype Co.; and Hank Kastman, R. R. Donnelley Co.

Eastern Appoints N. Y. Agent

George W. Millar & Co., Inc., New York, has been appointed a franchised merchant for the complete line of Atlantic and Manifest fine business papers, it was announced last month by Eastern Corp., Bangor, Me.

Millar has been supplying paper requirements in the New York metropolitan area for 96 years.

Lithographers Incorporate

Mystic-Lite Corporation, lithograph equipment, New York, has been granted charter of incorporation listing capital stock of 700 shares — 500 shares pfd. \$100; 200 shares common, no par value. Directors are Anna Arlicks, Fred Kaplan and Michael M. Schaeffer, all of New York

Angle-Lith, Inc., Brooklyn, N. Y., has been granted charter of incorporation listing capital stock of 100

5

Poster, Stamp Contest Winners Announced by PIA

Winner of the 1956 International Printing Week Poster Contest is John Rile of Wayne, Pa.

Meeting July 7, contest judges awarded the first prize to Mr. Rile with Certificates of Honorable Mention going to entries submitted by Emil Georg Sahlin, Buffalo, and Hyman Spiegel, Darby Printing Co., Washington, D. C. Mr. Sahlin submitted two entries, each of which received top honorable mention awards.

Emil Georg Sahlin, Buffalo, won the 1956 International Printing Week Stamp Contest. Meeting in York, Pa. last month, contest judges awarded the first prize to Mr. Sahlin with Certificates of Honorable Mention going to entries submitted by Gerry P. Waldston, Montreal, Canada; John G. Fitzgerald, Eagle-Tribune Printing Co., Lawrence, Mass.; and Ralph Marchese, Clifton, N. J.

The winning awards for both Poster and Stamp Contests will be presented by Thomas P. Mahoney, president, International Craftsmen, at the Printing Week Luncheon, August 9, at the Craftsmen's International Convention in Cincinnati.

shares no par value. Directors are Harry Karsh, Rose Karsh and Arthur J. Tuckman, all of Brooklyn.

European Posters on Exhibit

The Lakeside Press Galleries are showing European Posters now through September in the exhibit rooms, eighth floor, R. R. Donnelley & Sons, 350 East 22nd St., Chicago. Lithography predominates, sometimes drawn directly on stone or plate and using as many as six or seven colors; one example of hand lithography uses eight.

The posters, chosen in Switzerland, represent art from Austria, Denmark, England, France, Germany, Italy, The Netherlands, Sweden, and Switzerland. Also included are works from Puerto Rico and Japan.

Rhodes To Rochester Research

Warren L. Rhodes has been named head of the graphic arts research department at Rochester Institute of Technology. He will assume his new duties in mid-August.

Mr. Rhodes, who will direct R.I.T.'s research program of science and technology in graphic arts, replaces Virgil P. Barta. Mr. Barta, with his administrative assistant Herbert Morrow, Jr., has resigned to enter private business on the west coast.

Mr. Rhodes recently returned from Europe where he represented R.I.T. at the Graphic College Conference in Copenhagen, and in Holland.

Hoe Advances Two

R. Hoe & Co., New York, has recently announced the appointment of George Lenart to assistant treasurer in charge of accounting, budgeting and cost functions. Mr. Lenart has been associated with R. Hoe in a consulting capacity.

Also, W. J. Robinson has been appointed to Hoe's southern sales office in Birmingham, Ala.

Where to Hold 7th EGA Show

Questionnaires were mailed last month to exhibitors in the 1950 Exposition requesting an expression on when and where to hold the 7th Educational Graphic Arts Exposition. The New York Club of Printing House Craftsmen has appointed a committee to invite the International Association of Printing House Craftsmen to New York in the fall of 1959 to celebrate the 50th anniversary of the founding of the first club of Printing House Craftsmen in the U.S. Members are anxious to have the 7th EGA exposition in New York at the same time. A Chicago site is also being considered.

Scranton Litho Man Dies

Harrison W. Reichard, a founder and former treasurer of Scranton Lithographing Co., Scranton, Pa., died June 26. He helped found the Scranton Lithographing Co. when he came to the city in 1906 and served as its treasurer until he retired three years ago.

SERVICE PLUS QUALITY!

HAS MADE OUR PLANT THE WORLD'S FINEST

We Specialize in all sizes
MULTILITH and DAVIDSON PLATES



All sizes ZINC and
ALUMINUM PLATES
UNGRAINED-GRAINED-REGRAINED



35-51 Box Street

Tel. EVergreen 9-4260-4261

Brooklyn 22, N. Y.



WE HAVE NO
QUARREL
WITH THOSE WHO
SELL FOR LESS-

THEY KNOW WHAT THEIR STUFF IS WORTH!

AMERICAN GRADED SAND COMPANY Chicago 13, Illinois Paterson 4, New Jersey



New York

Sept. Outing Date Switched

New York Litho Club's annual picnic, originally scheduled for Sept. 17 has been moved up to Sept. 10, according to Don Rovegno, president. Plattdeutsche Park on Hempstead Turnpike, Franklin Square, Long Island is still the site.

The program, starting with breakfast at noon, lists bowling sweepstakes, horseshoe pitching contest, softball game (Litho Club vs. suppliers' team), golf chipping contest, tug of war, egg throwing contest, bag race, and baseball throwing contest. Breakfast and dinner are included as well as refreshments, in the \$10.00 tab for the day, Mr. Rovegno said.

Cleveland

Club Picnic Attracts 114

The annual picnic of the Cleveland Litho Club held as a family affair this year, brought more than 114 people to Sally West Grove on Cleveland's west side.

Lithographers beat out the suppliers in the ball game by the score of 15-14. Fred Dippong, Eastman Kodak, was suppliers' captain and Jim Derfel, Copifyer Lithograph Corp. was the lithographers' chief. Litho Club president, Paul Meunier, R. E. May Co., scored the winning run. More than 45 prizes were given away at the ticket drawing.

According to Mr. Meunier, the field trip to Champion Paper Co., June 3, 4, and 5, was attended by 30 club members. The Club's "Behind the Fence" ball game party on July 1 at Cleveland Stadium brought 121 members and families to the park.

Chicago

Schedule Golf Outing for August

Chicago Lithographers Club will close their season with their annual golf outing, planned for August 20 at Midwest Country Club. Other Chicago graphic arts organizations worked off their mid-summer golf tourneys in July. North Side Printers Guild went to Glendale Golf Club, July 12; Chicago Printing Ink Manufacturers staged their tournament at River Forest Country Club, July 14; and Employing Book Binders Club played at White Pines Country Club, July 19.

Conn. Valley

A New England Clam Bake is the main attraction planned for Connecticut Valley Litho Club's annual Joe Siracuse Memorial Outing, Aug. 20 at Turner Park, Longmeadow, Mass.

Other activities will include baseball, outdoor games with prizes, refreshments served all day, and group singing, according to Frank Holloway, president. Guests are welcome and tickets are \$5.50 per person.

Dallas

Texans, meeting at the D. P. & L. Auditorium, Dallas, July 5, dispensed with formal technical discussions and enjoyed movies on lithography, fishing, and other summer subjects.

LITHO CLUB GUIDE

BALTIMORE

Norwood A. Heselbach, Secy. Interchemical Corp. 720 East Pratt St., Baltimore 2, Md.

Thomas J. Cain, Secy. Hub Offset Co. 175 Purchase St., Boston 10

BUFFALO Vic Reisch, Secy. 33 Eiseman Ave., Kenmore 17, N. Y.

CANTON, Ohio Jack R. Reinart, Secy. 1912 Maryland Ave., S.W., Canton

CHICAGO Fred L. Faulkner, Secy. Chief Printing Co.

CINCINNATI Peter Schannes, Secy. Mail-Way Advertising Co. 229 East Sixth St. Cincinnati 2, Ohio

CLEVELAND Milton Cornman, Secy. IPI 1325 W. 73 St., Cleveland 2

CONNECTICUT VALLEY Charles H. Waterhouse, Secy. 27 Van Ness St., Springfield, Mass.

L. J. Reynolds 6306 Latta St., Dallas, Texas

DAYTON Richard Clark, Secy. 740 Vine St., Piqua, 0.

DETROIT John Murphy, Secy. 13110 Santa Rosa, Detroit

HOUSTON D. Burton Pitts, Secy. 61 Riesner, Houston, Texas

MILWAUKEE Allan N. Williams, Secy. 4463 N. Morris Blvd., Milwaukee 11, Wis.

NEW YORK Tom Cavallero Schlegel Litho. Corp. 2nd Ave. & 22nd St., New York Meets 4th Wednesday, Building Trades Club

ONTARIO Harold E. Swift, Seey. 179 Bartley Drive, Toronto 16, Ontario, Canada

PHILADELPHIA Joseph Winterburg, Secy. 622 Race Street, Philadelphia 6 Meets 4th Monday, Poor Richard Club

QUEBEC John Martin, Secy. Gazette Printing Co., Ltd. 1000 St. Antoine St., Montreal, Canada

ROCHESTER Roy Bippes, Secy. Box 401, 87 Pleasant Ave., Pt. Pleasant, N. Y.

ST. LOUIS Iter Blattenberger, Secy. 1310 South Spring St., St. Louis 10, Mo.

TWIN CITY Paul Rudin, Secy. Brown & Bigelow Quality Park, St. Paul 4

WASHINGTON H. Thos. Driver, Secy. PO Box 952, Benj. Franklin Sta. Washington, D. C. Meets 4th Tuesday

NAT'L ASS'N OF LITHO CLUBS Frank Mortimer, Exec. Secy. Govt. Printing Office, Washington, D. C.

" Makers of Fine Offset Plates"

FULL COLOR . BLACK AND WHITE

Graphic Arts Corporation of Ohio

110 OTTAWA STREET . TOLEDO 4, OHIO

Our thirty years' experience in color and black and white work assures you of printing plates worthy of award.

Skilled crafismen excelling in the preparation of advertising art, commercial photography, offset press plates (all types), photoengraved and rotogravure plates combine to afford you a most complete service.



Detroit Plant 825 West Elizbaeth St. Detroit 1, Mich.

New York Office 122 East 42nd St., Room 419 New York 17, New York

Chicago Office 222 West Adams St., Room 429 Chicago 6, III.

You can't afford mistakes ...

YOU NEED THESE SAFEGUARDS

FOUND ONLY ON THE RUTHERFORD PHOTO-COMPOSING MACHINE







DIALS accurate to 1/1000th inch. MOTOR-DRIVEN push-button controls.

Operator fatigue that leads to costly mistakes is curbed by precise, motor-driven movements in the Rutherford Photo-Composing Machine. Safety-cut-off switches at limits of travel on all movements. And unbeatable accuracy is assured by push-button controls and direct reading dials (shown at left) which are accurate to 1/1000th inch.

These exclusive Rutherford designs and many others are typical of Rutherford's built-in protection for precision and the most efficient, economical and trouble-free production.

Note *all* the advantages! And the cost? Much less than you probably think. Over 700 Rutherford units are proved every day in operation across the country.

For information, consult Rutherford Machinery Company, Division of Sun Chemical Corporation, 10th Street and 44th Ave., Long Island City 1, New York.



Rutherford Machinery Co.

10-10 44th Avenue, Long Island City 1, N. Y. Chicago * Toronto * Montreal * San Francisco

DIVISIONS OF SUN CHEMICAL CORPORATION

HORN - HUDSON - WILLEY (paints, maintenance and construction materials, industrial coatings) - WARWICK (textile and industrial chemicals) - WARWICK WAX (refiners of specialty waxes) - RUTHERFORD (lithographic equipment) - SUN SUPPLY (lithographic supplies) - GENERAL PRINTING INK (Sigmund Ullman - Fuchs & Lang - Eagle - American - Kelly - Chemical Color & Supply Inks - MORRILL (news inks) - ELECTRO-TECHNICAL PRODUCTS (coatings and plastics) - PIGMENTS DIVISION (pigments for paints, plastics, printing inks of all kinds)



New Process Camera Shown

Repro Graphic Machines, Inc., New York, has introduced the new Klimsch-Commodore, a process camera specifically designed for large size work.

The camera offers good accessibility to all control elements from inside and outside of the darkroom. The overhead bed of welded steel is truss re-inforced and suspension on three points on rubber springs eliminates vibrations and distortions, the company said. An automatic focusing device moves lensholder and copy board simultaneously exactly



according to the requirements of the optical laws. The copy board is of the vacuum type and serves as transparency holder for glass negatives with plate holder bars in front of the frame.

New Automatic Perforator

Nygren-Dahly Co., Chicago, has announced that it is now in production of an all-new Rotary Slot Perforator. This extra-heavy-duty N-D. Rotary Slot Hole Perforator is primarily designed for use with pile feeders and day-boy joggers. The machine will fit into present N-D automatic perforating units and is offered in 30", 36", 42" and 45" sizes.

New Powdered Fountain Solution

Powdered Fountain Concentrate and Powdered Professional Etch are two new additions to the line of offset supplies offered by Van Son Holland Ink Corp. of America, Mineola, N. Y.

Packaged in a reusable plastic box,

Fountain Concentrate is compounded so that the same solution can be used with both paper and metal plates, the company states. Thirty-two individual packets are contained in the box; each packet is dissolved in a pint of luke warm water. To mix the Professional Etch the contents of the packet is dissolved in one gallon of water.

Miller Folder on M.A.N. Press

A file folder for collection of literature on the new Miller offset presses has been distributed by Miller Printing Machinery Co., Pittsburgh. By saving mailing pieces to be sent out in the future, a complete description of the Miller-M.A.N. offset presses can be assembled, company spokesmen said.

Peelable Adhesive Available

Two special types of adhesives have been added to the flat gummed paper line of McLaurin-Jones Co., Brookfield, Mass.

McLaurin - Jones Peelable Adhesive strips peel away without leaving a stain or dextrine residue on textiles, the company said.

The other special adhesive is Tropical Gumming, which has been used on gummed paper shipped to regions of high relative humidity where blocking presents a serious problem. Developed originally for export trade, thousands of reams have been used by foreign and domestic stamp and label producers, it is said.

Lower Cost Color Offered

Color Litho, Inc., Cleveland, gives 48-hour service on full color transparencies at lower cost through a new method of photolithography developed at Eastman Kodak, according to the company. The effect of four-color process with only three colors-magenta, yellow and cyanat a cost saving is done through scientifically controlled photo mechanical processes, exclusively from color transparencies from 35 mm and up. Color separations are supplied in either negative or positive halftone form, 150 line screen, according to Jerome S. Herman and David Porath, owners of Color Litho.

Proving Ground for New Cutter

One of the first Harris-Seybold Scher Auto-Spacer paper cutters, this 41" model is installed at Merrick Lithograph Co., Cleveland. Field testing at Merrick Litho for more than a year, enabled Seybold engineers to study the new Saber

Auto-Spacer handling a wide variety of high-production jobs. Specializing in pointof-sale material and high quality process



lithography, Merrick also produces large numbers of labels and Ohio sales tax stamps.

Linton Bros. Show New Kit

"Ideas on Bristol" is the theme of two new kits being distributed by Linton Brothers & Co., Fitchburg, Mass. Each kit contains specimens of commercial jobs on various grades of bristol manufactured by Linton. Lithographed samples are sources for promotional ideas on direct mail pieces, tags for clothing, identification cards, etc.

Linotype Has New Hydraquadder

A hydraulic quadding device with a simplified electrical system for push-button or automatic tape operation is now available from Mergenthaler Linotype Co., New York.

Linotype originated automatic quadding from tape and has now applied the principle to its Hydraquadder, J. W. Reid, vice president in charge of sales, said. The electric Hydraquadder is the first quadder to use a printed circuit. Keyed plug-in relays and connections are used throughout the electric system.

Bulletin On Photoelectric Controls

An electronic system that automatically controls cutoff and color register on high-speed, web-fed presses and other rotary printing equipment is described and illustrated in a new four-page bulletin offered by Champlain Co., Bloomfield, N. J.

Two models of the Registron, Champlain's automatic register control unit, are discussed in the bulletin, with the principal components of each model listed. Basic units of the system consist of a web scanner, photoelectric phase detector and automatic control panel. A block diagram, which outlines the electronic circuit for the automatic register unit, is included.

Five Colors On One Print

Tecnifax Corp., of Holyoke, Mass., has announced a new diazo-sensitized material called Varicolor which produces five colors on one print; blue, yellow, red, brown and black. Three bases available are clear cellulose-acetate film, white opaque cellulose-acetate film, and aluminized, plastic-coated paper.

According to the company, Varicolor is exposed in an ammoniadeveloping diazotype (whiteprint) machine in the same manner as any other diazotype material. Any wellprepared, translucent original can be used as a printing-master . . . pencil or ink drawings, diazo-intermediates, type proofs, photographic film positives, typed masters, etc. After exposure, "color-former" solutions are applied by hand (a different one for each color), as appropriate for the various sections of the print. Final development is accomplished by passing the print through the ammonia developer.

New Bronzer at Brett

A new Dreissig Kombi 10 V Bronzer, 76", has been installed at Brett Lithographing Co., New York, according to an aunouncement by Henry P. Korn Co., New York. Used for offset coated and parchment, the machine can take a sheet size of 52 x 76". A sifting machine was also installed.

Robertson Has New Camera

A new model of the "Shooting Star" camera is now in production by Robertson Photo-mechanix, Inc., Chicago.

Refinements and additions resulting from two years of field experience with the earlier models have been incorporated in the camera. Speed of the electric screw drive focusing has been doubled and a new and rigid, integrally welded track, which combines the advantages of a tubular monorail with the more conventional bi-rail construction is included. Lensboard and copyboard carriages have also been altered for maximum strength and rigidity. The copyboard is fully rotatable, permitting opaque copy in the glass covered board, or transparencies in the precision positive holder to come into the same optical plane during

Conditioner "Armor-plates" Inks

"Glazcote", a scratch-resistant printing ink conditioner developed by Central Compounding Co., Chicago, is said to offer a solution to one of the graphic arts' most troublesome problems: marred printed surfaces. When added to the regular ink, Glazcote provides a tough, scuff-resistant finish that greatly helps eliminate scratched impressions, the manufacturer says. Other advantages are said to include ready blendability with inks, elimination of crystallization, control of chalking and an aid in color trapping.

Dimensional Stability Of Film

A new Eastman Kodak publication, "Dimensional Stability of Photographic Film," is now available.

The leaflet explains why photographic films change size, and provides some data on both cellulose ester and polystyrene base film sheets.

The theory and types of expansion and shrinkage are discussed, with suggestions given for handling film to minimize size changes. Also included is a table of average dimensional change values for Kodak Sheet Films.



Tom Bowden

Neil Bowden

New Supply House in Baltimore

Bowden Graphic Arts Supply Co., at 504 E. Lombard St., Baltimore has been started by two brothers, Tom and Neal Bowden. A complete line of supplies for the graphic arts is offered in the states of Maryland, Virginia, Delaware, and part of Pennsylvania and New Jersey.

Rosback Shows "300" Series

A new "300 Series" Rosback Rotary Slot Perforator has been introduced by F. P. Rosback Co., Benton Harbor, Mich.

Built oversize to provide ample room for side register adjustments, Model No. 330 takes a 30" wide sheet. No. 336 takes a full 36" wide sheet. The machine will perforate stock from 9 lb. manifold to post card weight and the user may select proper snapout or knife cut perforating, or heads to do standard slot perforating, scoring or creasing.

New Plate Filing System

Colwell Litho Products, Inc., Minneapolis, have devised a new system for filing offset plates.

The Colight System uses 12 x 18 envelopes for holding 10 x 16 plates, negatives, and art work, which are filed in specially designed cabinets holding more than 250 jobs per cabinet. Cabinets can be stacked as the system grows.

Checking State Electricity

Dayton Rubber Co. engineers recommend a 1/25th watt neon glow bulb near a V-belt as a simple means for maintenance men and safety engineers to check for potentially dangerous static electricity. The bulb will light if there is static electricity around the belt.

Contrary to popular opinion, the scientists say that there will be less static electricity generated during a thunder and lightning storm or whenever it is damp. On dry days there may be enough static electricity generated to knock the bulb out of your hand, so some kind of a holder is recommended; such as an ordinary pencil.

Adhesives "History" Book

Development of industrial adhesives is told in a new book, "Brand of the Tartan," by Virginia Huck. The volume traces the history of Minnesota Mining and Mfg. Co.

Philo Installs New Equipment

I. H. Philo Corp., New York, have recently added a bronzer which takes a sheet up to 42 x 58". They are also replacing presses and expect a new 42 x 59" two-color and a 22 x 29" to be installed by the end of the summer.

Ink-Maker in New Offices

The Los Angeles office of C. O. Monk, Inc., has completed moving and is in full operation at its quarters in Montebello, Calif.



Like to see smaller bills for large type composition?

You can save important money on typesetting that requires type sizes larger than those available in metal.

With Warwick Fotosetter composition, type is automatically composed by a method that is universally recognized as the fastest method of typesetting. It is then blown up photographically, producing without retouching, the sharpest, cleanest reproduction you have ever seen.

Is it any wonder that we can promise a substantial saving over the old method of blowing up reproduction proofs of type that are invariably fuzzy and require, in many cases, hours of retouching?

Want proof? Then send for our latest book, "Photographic Typesetting", which contains many examples of this nature besides a comprehensive showing of text types and other photographic services available at Warwick.

WARWICK TYPOGRAPHERS inc.

Dept. G-1 · 920 Washington Ave. · CEntral 1-9210 · St. Louis 1, Mo.

Warwick Serves Clients in 40 States, Canada, Mexico and Cuba.

"Crongr" Databook Available

A 12-page technical data booklet on "Cronar"-based Photolith including charts and graphs which will enable the user to determine the performance of litho-sensitized "Cronar" base under particular shop conditions, is available from Du Pont Photoproducts department. Early evaluation of the polyester photographic film base indicated that 4-mil Cronar coated with Photolith emulsion could serve both as a standard-weight film and as a replacement for thin-base in many

applications, the company reported.

Good dimensional stability is claimed; for example, a 30-inch sensitized sheet of Cronar when exposed to a 20 percent increase in relative humidity changes size an average of .009". However, a 30-inch sheet of standard cellulose acetate base coated with Photolith emulsion is affected .054" under the same conditions.

Photolith film and other Du Pont photographic products on "Gronar" base are expected to be available commercially later this year. Safety Council Publishes Guide

Occupational Safety Services of the National Safety Council are listed in a new 68-page catalog just released by the National Safety Council, Chicago.

Included is a list of Council periodicals, newsletters and a complete library of technical and administrative publications covering all phases of occupational accident prevention. Information on the subjects covered in the basic and advanced courses of the Council's Safety Training Institute also is included.

The service guide offers a monthly magazine, training films and hundreds of five-minute safety talks to assist foremen.

Lettering Templets, Scribers

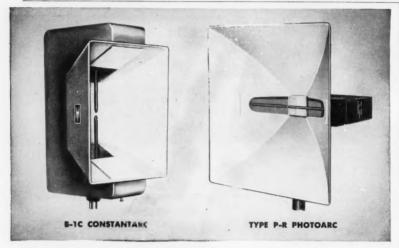
Letterguide Co., Lincoln, Neb., announced in a newly released catalog, its scriber and templets for advertisers and commercial artists. The scriber which has no moving parts can produce high quality lettering on offset plates, wax stencils and transparent overlays, the company said. The templets are offered in many type faces in sizes from 1/2" to 5/8" and in some styles, up to two inches.

Signs and Symbols Book

Dover Publications, Inc., New York, have published a 104-page book called "The Book of Signs," containing illustrations of 493 ancient and medieval symbols. They have been collected, drawn and explained by Rudolf Koch and translated from the German. Mr. Koch, prominent in the graphic arts in Germany as a type-designer, calligrapher, artist and bookbinder, has had the book printed in his own magere deutsche type.

R.P.M. Hydraulic Cutter Data

Consolidated International Equipment & Supply Co., New York, announced recently the availability of a new three-color publication covering its Consolidated R.P.M. Hydraulic Cutter. Information in the brochure includes data on operation, specifications and the new electric eye safety control, available in 32", 36", 41", 51" and 65".



For Camera . . . for Printing . . .

MACBETH Arc tamps are light-years ahead!



B-1C CONSTANTARC. Completely and constantly automatic. Produces a steady light of tremendous intensity which brings out tiny details in the darkest portions of copy...which cuts down expensive camera operating time. The Constantarc automatically compensates for power fluctuations, drafts and carbon impurities. Can be furnished with any of the standard Macbeth mountings. No other lamp on the market offers all the advantages of a Macbeth Constantarc!

PHOTOARC PRINTING LAMP for vertical printing frames. Engineered to assure constant, steady light—both in intensity and color—regardless of line voltage fluctuations. Successive exposures produce identical results. Completely and continuously automatic like its companion "The Constantare". Recommended for photoengravers, lithographers and in gravure and blueprinting processes. Adaptable for use on photocomposing machines. For details write...





MACBETH ARC LAMP COMPANY 141 Berkley St., Philadelphia 44, Pa.

New Equipment Installations

Harris-Sevbold Co.

Hewitt Studios, Inc., Atlanta, Ga., Harris 171/2x221/2" single-color offset press, Model LTV; Southern Printing & Lithographic Co., Atlanta, Ga., Harris 171/2x221/2" singlecolor offset press, Model LTV: Longino & Porter, Inc., Hapeville, Ga., Harris 23x36" single-color offset press, Model LTN; Busch & Schmitt, Inc., Chicago, Ill., Harris 23x30" single-color offset press, Model LTW; Photopress, Inc., Chicago, Ill., Harris 521/2x77" two-color offset press, Model LTY; Shattock & McKay Co., Chicago, Ill., Harris 171/2x 221/2" single-color offset press, Model LTV; Wallace Press, Chicago, Ill., Harris 23x30" single-color offset press, Model LTW.

Register & Tribune Co., Des Moines, Iowa, Harris 23x30" single-color offset press, Model LTW; Franklin Printing Co., New Orleans, La., Seybold 34" Dynaclamp, full automatic clamp cutter, Model CHB; Guide Publishing Co., New Orleans, La., Sevbold 34" Dynaclamp, full automatic clamp cutter, Model CHB; O'Donnell Brothers, New Orleans, La., Seybold 34" Dynaclamp, full automatic clamp cutter, Model CHB

Dulany-Vernay Co., Baltimore, Md., Harris 23x36" single-color offset press, Model LTN: Harry H. Hoffenberg d/b/a Sherwood Press, Baltimore, Md., Seybold 34" Dynaclamp, full automatic clamp cutter, Model CHB; Haynes Lithograph Co., Silver Springs, Md., Harris 521/2x77" four-color offset press, Model LTZ; Courier-Citizen Co., Inc., Lowell, Mass., Harris 36x48" single-color offset press, Model LUD-Harris 171/2x221/2" single-color offset press, Model LTV-Seybold 34" Dynaclamp, full automatic clamp cutter, Model CHB; American Press, Inc., New Bedford, Mass., Seybold 34" Dynaclamp, full automatic clamp cutter, Model CHB.

Lyman Printing Co., Battle Creek, Mich., Seybold 34" Dynaclamp, full automatic clamp cutter, Model CHB: Barnes Printing Co., Kalamazoo, Mich., Harris 23x30" single-color offset press, Model LTW; Colorcraft Press, Minneapolis, Minn., Harris 23x30" single-color offset press, Model LTW; Imperial Printing Co., Minneapolis, Minn., Harris 23x30" single-color offset press, Model LTW; Phelps Offset Printing, Inc., Minneapolis, Minn., Harris 23x30" singlecolor offset press, Model LTW; John Roberts Co., St. Paul, Minn., Harris 23x30" single-color offset press, Model LTW.

Greiner-Fifield Lithographing Co., Kansas City, Mo., Harris 36x48" two-color offset press, Model LUE; Smith-Grieves Co., Kansas City, Mo., Harris 36x48" single-color offset press, Model LUD; Compton & Sons, Inc., St. Louis, Mo., Harris 23x30" singlecolor offset press, Model LTW; Mendle Printing Co., St. Louis, Mo., Harris 36x48" single-color offset press, Model LUD; Har-

vey A. Collins d/b/a Collins Offset Co., Jersey City, N. J., Harris 23x36" two-color offset press, Model LTP; Business Press, Inc., Newark, N. J., Harris 171/2x221/2" single-color offset press, Model LTV; Louis Peck, Newark, N. J., Harris 23x30" singlecolor offset press, Model LTW; Wayside Press, Inc., Paterson, N. J., Harris 23x30" single-color offset press, Model LTW.

Moore Business Forms, Inc., Elmira, N. Y., Seybold Hydrodrill, multiple spindle drilling machine, Model HFA: Peter F. Mallon, Inc., Long Island City, N. Y.,

Harris 23x30" single-color offset press, Model LTW: Circulation Associates, New York, N. Y., Harris 23x30" single-color offset press, Model LTW; Andrew Milo Press, Inc., New York, N. Y., Harris 23x36" twocolor offset press, Model LTP; Printers Lithographing Co., Inc., New York, N. Y., Harris 36x48" two-color offset press, Model LUD; Rapid Mail Service, Inc., New York, N. Y., Harris 23x30" single-color offset press, Model LTW; University Photo Offset Co., Inc., New York, N. Y., Harris 23x30" single-color offset press, Model LTW; Racom Processing Corp., W. Nyack, N. Y., Harris 23x36" two-color offset press, Model LTP; Brownie Press, Inc., White Plains,

(Continued on Page 102)



THE ONLY RECOMMENDED SUBSTITUTE FOR GLASS WHERE YOU NEED ACCURATE REGISTER -

- They're Cheaper
- They're Lighter
- Non-Breakable
- Dimensionally Stable
- Easier Storage
- All Sizes Available Thicknesses, .005", .010", .015", etc.

Standard Sizes In Stock

50" x 72" 51½" x 74" 51½" x 77" 42" x 511/2" 20" x 50" 26" x 36" 40" x 54" 42" x 54" 30" x 511/2" 54" x 72" 54" x 77" 48" x 511/2" 36" x 48" 36" x 50" 50" x 70" 511/2" x 120" 54" x 120" 40" x 511/2" 511/2" x 60"

> SUPPLIES FOR CHROMELINE "COLOR PROOF PROCESS" WRITE FOR CATALOG N (SAMPLES and PRICES) TODAY

MANUFACTURERS OF PLASTICS, GLASS AND LIGHT ROOM EMULSIONS.

261 GRAND CONCOURSE

NEW YORK 51, N. Y.

Telephone: MOtt Haven 5-2050

N. Y., Seybold 34" Dynaclamp, full automatic clamp cutter, Model CHB.

Star Press, Inc., Shelby, N. C., Harris 171/2x221/2" single-color offset press, Model LTV: Chillicothe Paper Co., Chillicothe, O., Seybold Precision 94" mill trimmer. Model M-94; Columbia Match Co., Mentor, O., Harris 171/2x221/2" single-color offset press. Model LTV: Semco Color Press. Inc., Oklahoma City, Okla., Harris 171/2x 221/2" single-color offset press, Model LTV; C. E. Howe & Co., Philadelphia, Pa., Harris 36x48" two-color offset press, Model LUE; Phillip F. Kelly & Thomas J. Bowen d/b/a Strathmore Press, Philadelphia, Pa., Seybold 34" Dynaclamp, full automatic clamp cutter, Model CHB; Pottstown Paper Box Co., Inc., Pottstown, Pa., Harris 171/2x 221/2" single-color offset press, Model LTV; Color Craft, Inc., Pawtucket, R. I., Harris 171/2x221/2" single-color offset press, Model LTV; Crowson-Stone Printing Co., Inc., Columbia, S. C., Harris 23x30" single-color

offset press, Model LTW; Tri-State Ruling & Binding Co., Inc., Memphis, Tenn., Harris 23x36" single-color offset press, Model LTN; McQuiddy Printing Co., Nashville, Tenn., Harris 23x36" two-color offset press, Model LTP.

David E. Scull & David H. Scull, d/b/a Scull Studios, Annandale, Va., Harris 17½x 22½" single-color offset press, Model LTV; Camp Mfg. Co., Inc., Franklin, Va., Seybold Precision 94" mill trimmer, Model M-94; Crowder Offset Prtg. Co., Inc., Norfolk, Va., Harris 23x36" two-color offset press, Model LTP; Seth Gayle Co., Richmond 19, Va., Seybold 34" Dynaclamp, full automatic clamp cutter, Model CHB; Whittet & Shepperson, Richmond, Va., Harris 23x36" two-color offset press, Model LTP.

Johnson Printing Co., Eau Claire, Wis., Harris 23x36" two-color offset press, Model LTP; Marathon Corp., Menasha, Wis., Harris 36x48" two-color offset press, Model LUE; Valley Press, Inc., Menasha, Wis., Harris 17½x22½" single-color offset press, Model LTV; Dosie & Johnson Co., Milwaukee, Wis., Harris 23x36" two-color offset press, Model LTP.

Might Directories Ltd., Toronto, Ontario, Harris 23x30" single-color offset press, Model LTW.—Harris 23x30" single-color offset press, Model LTW; Litho Print, Ltd., Toronto, Ontario, Harris 52½x77" two-color offset press, Model LTY; McCorquodale & Blades, Itd., Toronto, Ontario, Harris 23x 30" single-color offset press, Model LTW; Rolph-Clark-Stone, Ltd., Toronto, Ontario, Harris 52½x77" four-color offset press, Model LTZ; Cambridge Press, Montreal, Quebec, Harris 23x36" two-color offset press, Model LTP; Clen-Mathers Press, Ltd., Montreal, Quebec, Harris 23x30" single-color offset press, Model LTW.

Rutherford Machinery Co.

A-Z Graphic Arts Plate Co., Peoria Heights, Ill., Type PLD Rutherford Precision Photo Composing Machine and Type JWFA Rutherford Plate Whirler; Crown Cork & Seal Co., Inc., Crown Can division, Philadelphia, Pa., Type RMH Rutherford Precision Photo Composing Machine; Logan Printing Co., Peoria, Ill., Type RMH Rutherford Precision Photo Composing Machine; Photocircuits Corp., Glen Cove, N. Y., Type RMH Rutherford Precision Photo Composing Machine; Gray Photo Offset Corp., New York, Type RMT Rutherford Precision Photo Composing Machine.

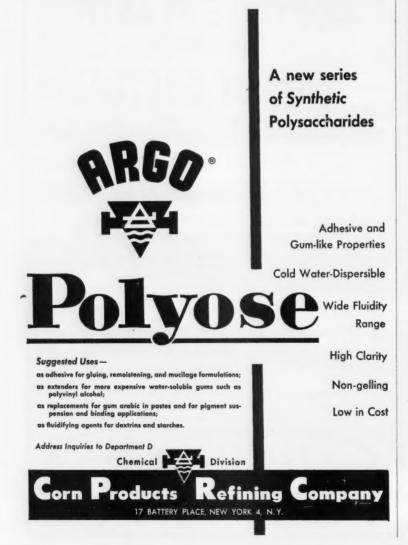
E. P. Lawson Co.

Canterbury Printing Co., Rome, N. Y., 39" Lawson Heavy Duty Automatic Clamp Cutter; City Bindery Inc., New York, 39" Lawson Heavy Duty Automatic Clamp Cutter; Robinson & Schoenfield, New York; 39" Lawson Heavy Duty Automatic Clamp Cutter; DeLuxe Check Printers, Clifton, N. J., 46" Lawson Electronic Spacer Cutter; Advertising Tag & Printing Co., New York, 52" Lawson Electronic Spacer Cutter; H & H Bookbinding Co., New York, 52" Lawson Electronic Spacer Cutter; Hold-State Offset Printing Co., Syracuse, N. Y., 52" Lawson Heavy Duty Automatic Hydraulic Clamp Cutter; Clinton Paper Co., Lockhaven, Pa., Lawson Heavy Duty Multiple Spindle Drilling Machine; DuPont Printing Plant, Philadelphia, Lawson Heavy Duty Multiple Spindle Drilling Machine.

Shaw's Inc., Philadelphia, Lawson Heavy Duty Multiple Spindle Drilling Machine; Printers Finishing & Binding Co., Washington, D. C., Lawson Heavy Duty Multiple Spindle Drilling Machine; Equitable Paper Bag Co., Long Island City, N. Y., Lawson Heavy Duty Multiple Spindle Drilling Machine; Wilson-Jones Co., Elizabeth, N. J., Lawson Heavy Duty Multiple Spindle Drilling Machine; Printers Finishing & Mig. Co., Baltimore, Md., Lawson Heavy Duty Multiple Spindle Drilling Machine; Ozalid, Johnson City, N. Y., Lawson Heavy Duty Multiple Spindle Drilling Machine; P. F. Mallon, Inc., Long Island City, N. Y., Lawson Rapid Automatic 3-Knife Trimmer; Philadelphia Bindery, Philadelphia, Lawson Rapid Automatic 3-Knife Trimmer.

Miller Pr. Press & Mfg. Co.

Rapid Service Press, Inc., Boston, Miller M.A.N. two-color offset press, the first installation of this equipment in the United States.



Mendes Shows Interleaving Unit

Production of snap-out forms can be multiplied two to three times using the new JCM, Carb-O-Matic



Automatic Carbon Interleaving Unit, according to The J. Curry Mendes Corp., Canton, Mass., manufacturers of the unit.

Tipping glue by foot control, automatically actuates the Carb-O-Matic to accurately place carbon paper in position. A built-in safety check automatically stops operation if a carbon is missed.

Miehle Shows Lithoed Folder

Offset presses by Miehle Printing Press and Manufacturing Co., Chicago, in the 29, 36, 41, 49, 61, and 76 series are shown in a new six-page folder. Offset work in two and three colors is shown in addition to sharp black and white halftones of machinery and other small parts.

Ideal Enlarges Sales Staff

Ideal Roller & Manufacturing Co., Chicago, recently announced that Michael N. Gioe and James J. Alymer have been added to the city sales staff of their eastern division, Long Island City, New York.

Messrs. Gioe and Alymer are now taking an intensive training course at Long Island City in preparation for field work.

Safety Cards Offered by NSC

The Printing and Publishing section of the National Safety Council has developed a series of 38 new safety instruction cards pointing up hazards in the printing industry. These 3 x 5 cards are check lists of safety practices which tell the accepted and safe methods of doing

a particular job. They may be purchased in quantity for less than a few cents each from National Safety Council, 425 North Michigan Ave., Chicago.

Eastern Corp. Offers Memo Box

Eastern Corp., Bangor, Me., has produced a memo box measuring $4\frac{1}{2} \times 6$ inches, finished in a bright orange color for memo paper. Each box contains 200 memo sheets, and refills will also be available through Eastern merchants.

Goldsmith Heads Offset at Zimmer

Michael F. Goldsmith has been named manager of Zimmer Printers Supply Co's. new offset division, according to an announcement by Edwin F. Zimmer, vice president of the New York company.

Augustine To Cincinnati Pres.

Lee Augustine, general chairman of the 36th annual Craftsmen's convention, was recently elected president of the Cincinnati Club of Printing House Craftsmen, Inc.



A Division of Union Carbide and Carbon Corporation 30 East 42nd Street, New York 17, N. Y.

Sales Offices: Atlanta, Chicago, Dallas, Kansas City, Los Angeles, New York, Pittsburgh, San Francisco In Canada: Union Carbide Canada Limited. Toronto

TECHNICAL BRIEFS

(Continued from Page 72)

*DAMPENING MECHANISM FOR LITHO-GRAPHIC OFFSET PRESSES AND THE LIKE. U.S. Patent 2.708,874. Joseph Schultz. Official Gazette 694, No. 4, May 24, 1955, page 454. 1. Mechanism for moistening rollers of lithographic presses, for use between moisture supply means and a dampening roller spaced from the mois-ture supply means, comprising a moisturereceptive and moisture-dispensing member, and teeter means mounting said member on an axis for up and down pivotal movements on the axis toward

and from the moisture supply means and said dampening roller, the member with its moisture content being disposed on the mounting means on one side of the axis and the mounting means being counterbalanced on the opposite side of said axis thereby to form a balance-like structure automatically controlling, according to the amount of moisture content in the member, the direction of pivotal movement of the member either for moisture pick-up or moisture dispensing.

LITHOGRAPHIC PROOFING. B. E. Tory. Graphic Arts Monthly 27, No. 5, May, 1955, pages 76, 78, 80, 82 and 84 (5 pages). Proof and production press proofing and photographic methods are

discussed. Plates must be made and colors adjusted so that proofpress proofs are similar to results possible during the production run. Color bars are included on all plates and inks are carefully weighed out on accurate scales.

Graphic Arts-General

HANDLING PACKAGING FILMS ON THE Press. Gravure 1, No. 4, April 1955, pages 38-39 (2 pages). This article describes gravure printing on packaging films. Packaging properties, press handling and ink formulation for such materials are cellophane, pliofilm and saran, polyethylene, aluminum foil, and cellulose acetate are discussed briefly.

PROPOSED CURRICULUM FOR PRINTING MANAGEMENT (ENGINEERING OPTION) APPROVED. Research & Engineering Coordinator 1, No. 2, April, 1955, page 7. R & E Council Planning Committee approved a proposed curriculum and recommended it to the School of Printing Management of Carnegie Institute of Technology. Subjects offered are listed.

TREATMENT OF POLYETHYLENE TO IM-PROVE INK RECEPTIVITY. Ted Irving. Paper Film and Foil Converter 29, No. 6, June, 1955, pages 28-29 and 58 (3 pages). The surface of polyethylene must be treated before it can be printed, but over-treatment can damage the film or impair ink adhesion. This article discusses methods of treatment by (1) chlorination, (2) differential heat treatment, (3) oxidation, and (4) electronic treatment. Also discussed are precautions to observe in treating polyethylene to obtain the best results.

THE TECHNOLOGY OF PAPER COATING. Part IV (Conclusion). Paint Oil and Chemical Review 118, No. 10, May 19, 1955, pages 16-18, 20-22 and 40-42 (9) pages). Table of contents lists: (Organic Coatings for Paper-Concluded) H. Other Vinyl Type Coatings, 1. Polyvinyl Acetals, 2. Polyvinylidene Chloride, 3. Po-Hyethylene, 4. Polystyrene, 5. Acrylic Resins; I. Rubber and Rubber Deriva-tives, 1. Cyclized Rubber, 2. Chlorinated Rubber, 3. Polybutenes, 4. Neoprene, 5. Other Synthetic Rubbers; J. Polyamide Resins; K. Miscellaneous Resins, 1. Plyesters, 2. Phenolic Resins, 3. Urea and Melamine Resins, 4. Silicone Resins, 5. Quilon, 6. Sulfonamide-Formaldehyde Resins, 7. Asphalts, and 8. Oleoresinous Varnishes.

*THE EFFICIENCY CONSIDERATIONS OF DRY DUSTING (ANTI-OFFSET SPRAY). Otto Warschun. Druckspiegel, January, 1955, pages 42-44 (in German); abstract from Deutschen Gesellschaft für Forschung im Graphischen Gewerbe, January, 1955. After the necessity of dry dusting was recognized two paths of development lay open: the search for a powder that would be least dangerous to health, which was found in FOGRA'S K4 powder; and the construction of a suitable duster. The solution to this problem was found in the PRINTAX duster. A comparison of the uses of dry and wet dusting materials since 1950 is given. Der Druckspiegel is published by Otto Blersch Verlag K.G., Stuttgart, Schottstrasse 107, Germany.



whenever you need Service or Supplies

Success in most things depends a lot on making the right move — that's why so many successful companies in the graphic arts are moving to Besco. They know that Besco is a reliable source for supplies and equipment. They know that Besco service is prompt, cheerful and accurate. They know that "BESCO means the Best".

BRIDGEPORT ENGRAVERS SUPPLY CO.

BRIDGEPORT 2, CONNECTICUT

BOSTON: 287 Atlantic Avenue • CLEVELAND: 1051 Power Avenue

Letters to the Editor

Dear Sir:

As superintendent of an offset plant, I've read your magazine for many years, and what has interested me most are your editorials on the shortage of skilled help in the field. In the July '55 issue editorial, I will have to disagree with you on one point; and that is, that making high school graduates aware of the printing industry's high salary potentials will attract them to the industry. One fact was left out and that is: How will they enter?

From my experience of 15 years in the trade in small towns and big cities I have found that due to pressure of work it takes the full time of an experienced man away from his duties and productive time to teach an apprentice. This is too costly for employers. I myself have always thought that schools placed in strategic areas of the U.S.A. backed by advertising campaigns, is the answer. If schools are accessible then learning can become a reality. Then an employer will be able to count on labor that will understand the trade and produce work productively with the full burden on his shop.

Now I come to my plan. I would like to open a series of schools and create this skilled labor; but, capital is needed and I thought perhaps you can put me in touch with the right parties who would be interested in backing such an organization, which would also include lectures before high school classes as well. I feel that I can really put this plan across from coast to coast, to the benefit of the entire litho field. Whether I get the backing or not, I plan to open a school in New York City in a short time myself. But with the proper backing I can spread it across the major cities. Would appreciate your writing me and give me your thoughts on this idea.

Sincerely yours, Jack Deckter 88-35 179th Place Jamaica, New York

Correction

Our apologies to B. P. Nilles whose company connection was incorrectly given in the caption accompanying his picture in the July issue of Modern Lithography, page 78. Mr. Nilles is of course well known to the industry as president of Rapid Roller Co., Chicago.

Peck Adds Cooper to Sales

Ernest A. Cooper has joined the sales staff of W. T. Peck & Co., Philadelphia lithographers, ,it was announced recently by W. T. Peck, president. Mr. Cooper has 14 years experience in production, eight with N. W. Ayer Co., four with Louis and Gilman, and two years with the Dorville Corp.

Continental Scholarship Awards

Three high school graduates have each been awarded a four-year, \$1,000 annual scholarship from the Carle C. Conway Scholarship Foundation, presented annually to children of Continental Can Co. emplovees.

General Lucius D. Clay, chairman of the board, announced last month that the 1955 competitive scholarship awards were won by James B. Conklin, Jr., Tampa, Fla.; Paul Meyer, Chicago; and Michael W. Kuhlmann, Stockton, Calif.

Flexographic Overprinting

Bensing Bros. & Deeney, Philadelphia, have published "Multi-Color by Overprinting Using Flexographic Inks." The report advises that the principle of using the three primary colors to produce an equal number of secondary colors, (orange, green and purple) plus one additional tertiary color (brown), coupled with the halftone plate, has expanded the color range in a continuous pattern from light yellow to dark brown by using only three color units on letterpress. gravure and offset.



supply center for the graphic arts

We now sell the HARRIS line of Surface Chemicals, Deep Etch Chemicals, Presensitized Plates, 3-in-1 Solution, and Press Chemicals. You will like them.

You'll also like the prompt. intelligent service you get from

We want you to have our catalog and a supply of new "Speed-Order" forms. They're free - write NATSCO New York.

NATSCO

A Complete Line for the Graphic Arts

National Steel & Copper Plate Company



Books and other Aids

How to Prepare Art and Copy for Offset Lithography

By William I. Stevens and John McKinvan

Twelve chapters with over 125 illustrations, two-threeand four-color lithography throughout. 81/9 x 11", clothbound, hard covers. A colorful and highly useful book for your library. Widely used in schools.

POSTPAID \$5.25

Color Chart for Dot Etching

This chart, composed of four sheets, is 221/2 x 261/2", and is bound at the top with a metal strip for wall hanging. The first sheet is magenta, cyan blue, process yellow and black. The second is warm red, cyan blue, process yellow and black. Number three is magenta, warm blue, process yellow and black, while the last is warm blue, warm red, process yellow and black.

Each of the four pages contains 215 color squares. Each square of color is identified, and each square is divided into four different percentage screen tints. It was produced on regular offset stock on a two-color offset press.

COMPLETE FOUR-PAGE WALL CHART - \$10

Photography and Platemaking for Photolithography

By I. H. Sayre (Fifth Edition 1951)

Chemistry of Lithography, Process of Platemaking, Formulas, Albumin, Deep Etch, Photo Composing, Layout and Stripping, Chemistry of Photography, Negative Treatments, Optics, Photographic Equipment, Halftones, Contact Screens, Color, Filters, Separations, Color Processes, Use of Densitometers, Two Color Printing, Special Color

Standard Size, Hard Cloth Covers, 442 Pages, Illustrated. Widely Used as a Standard Textbook.

POSTPAID \$6.75

How to Sell Lithography

By Arthur M. Wood

Illustrated, 176 pages. Chapters on copy preparation, pictorial outline of offset process, selling technique, use of color, prices and quotations, office procedure, company policies, and briefs on postal and legal aspects. 6 x 9". POSTPAID \$5.25

Point of Purchase Cardboard Displays

By Victor Strauss

First complete book covering the subject. Contains visuals of all kinds of displays, with a complete construction plan for each one shown.

There are 226 blueprints, coded and self-explanatory.
Discussion covers dummies, instruction sheets, cartons, packing and shipping. Another section covers items such as motors, flashers, rivets, hooks, rubber bands and other

fasteners and devices. It's 9 x 12", 218 pages, and a book every display man will need. Price, \$15.00.

Order Direct From MODERN LITHOGRAPHY

Modern Lithography Box 31, Caldwell, N. J.
Enclosed is payment. Please send the book (or chart), as checked. How to prepare Art & Copy — \$5.25 How to Sell Lithography — \$5.25 Photography and Platemaking — \$6.75 Color Chart for Dot Etching — \$10.00
Name
Street
City, Zone, and State



National Printing Trade Associations Representatives at Joint Graphic Arts Education Conference of the Education Council and IGAEA Greet U. S. Public Printer (Left to Right): Herbert Livesey, National Association of Printing Ink Makers; Quentin Young, Lithographers National Association of Litho Clubs; Bernard J. Taymans, Printing Litho Clubs; Bernard J. Taymans, Printing Litho Clubs; Bernard J. Taymans, Printing December 1988 (1988).

tion Council of the Graphic Arts Industry; Honorable Raymond Blattenberger, U. S. Public Printer; Kenneth R. Burchard, International Graphic Arts Education Association; Wade E. Griswold, Lithographic Technical Foundation; Harry Howard, Book Manufacturers Institute; Edward Lynch, Direct Mail Advertisers Association; Fred J. Hartman, International Graphic Arts Education Association.

R. R. Donnelley & Sons Co., Chicago; Don H. Taylor, New York Employing Printers Association, New York; Howard Massman, John H. Patterson Cooperative High School, Dayton, Ohio; Lawrence Meyerson, Bond Printing & Engraving Co., Cleveland; Richard J. Hoffman, Los Angeles City College; Arthur Gratz, Herbick and Held Co., Pittsburgh; Thomas McCabe, Printing Industries of Philadelphia.

Preceding the presentation, Harry L. Gage, Graphic Arts Consultant and member of the Executive Committee of the Education Council, reviewed the efforts of the printing industry and educators over the past several decades to develop cooperative programs to meet the industry's educational needs. George S. Dively,

Harris-Seybold Co., Cleveland, presented an illustrated talk on the work of the Education Council.

Effects of automation upon education and training programs were discussed by John M. Convery, National Association of Manufacturers. Automation, Mr. Convery said, includes two major kinds of operations: automatic assembly or production of identical products over long runs; and automatic control of processes or mechanical operations by means of specially engineered instruments and devices.

Public Printer Speaks
Raymond Blattenberger, Public
Printer of the U. S., speaking at the
luncheon session summed up a number of factors which he believed indicate a strong demand for printed

products. Mechanization and automation, he said, rather than reducing the number of workers required, would tend to increase them due to the larger quantities of materials that could be produced for new and wider markets. Mr. Blattenberger cited a recent graphic arts industry survey which showed an insufficient number of men in training to replace normal losses by death, retirement, or transfer out of the industry.

The Education Council, he said, is publishing a book for guidance counselors in schools giving them information concerning natural abilities and character traits which indicate a pupil's aptitude for a graphic arts career. In line with such a "recruitment program," the U. S. Employment Service is making available newly developed material on aptitude testing.

Printing Needs Must Be Met William H. Walling, Rogers-Kellogg-Stillson Co., New York, and president of Printing Industry of America, was banquet speaker and discussed "As Others See Us."

"In training and education," he declared, "we must find ways to relate the art and skill and industry of printing to the needs of the world, of our country, or our industry, and our people." He cited major developments in the social and economic life and structure of the country wherein printing is indispensable, such as the rise and growth of supermarkets and the "do-it-yourself" movement.

New officers for the Education Council of the Graphic Arts Indus-

MAKERS OF THE

FINEST QUALITY COLOR PLATES

FOR

OFFSET
LITHOGRAPHY

THE

STEVENSON
PHOTO COLOR SEPARATION CO.

400 PIKE STREET.
CINCINNATI 2, OHIO

try, Inc., are: president — Elmer G. Voigt, Western Printing & Litho. Co., Racine, Wis.; vice president—George S. Dively, Harris-Seybold Company, Cleveland, O.; vice president—Ralph D. Cole, Consolidated Litho. Corp., Long Island, N. Y.; vice president—Leslie C. Shomo, National Publishing Co., Wash., D. C.; treasurer—James W. Coultrap, Miehle Printing Press & Mfg. Co., Chicago; and secretary — Byron G. Culver, Rochester Institute of Technology.

New officers for the International Graphic Arts Education Association, elected at the business meeting are: president— Otis H. Chidester, Tucson Senior High School, Tucson, Ariz.; vice president—Charles E. Kennedy, Southern School of Printing, Nashville, Tenn.; secretary—Harold C. Hill, Durfee Intermediate School, Detroit; and treasurer—Vincent C. Coyne, Middlesex County Vocational and Technical High School, New Brunswick, N. J.

The Education Council's executive committee appointed Samuel M. Burt to managing director.★

INLAND STEEL

(Continued from Page 59)

feed horizontally into paddle-wheellike wickets of the oven conveyor as it passes over the end pully. The conveyor "up-edges" the sheet as it passes over the pulley and enters the oven. The oven comprises three stages — pre-heat, bake and cool.

Leaving the Oven

As the endless conveyor leaves the oven and passes over the return pulley, the sheets are again "downsided" and removed by a Dexter "oven end stripper" which conveys them to an automatic "piler." The Dexter Piler collects sheets as they come from the oven and automatically lowers them by the same method used to elevate the load at the feeder. Loads are pushed from the roller-conveyor platform of the piler onto a mating conveyor alongside and are removed by fork truck for further processing (or for delivery to the drum-forming section of the plant).

As sheets leave the oven, because of the "up-edging" and "down-siding", they are upside down from the original feeding position. If coated sheets are to be lithographed, or if a sheet is to be lithographed with a second color, or varnished, it must go through the line again and to do so must, of course, be right-side up. When this step is necessary, a "turnover" is used. This turnover is installed between the discharge end of the oven and the piler. It is so installed that if the turnover operation is not required, this device may be lowered into a pit and the sheets will pass directly to the piler. The turnover used at Inland is simply a large paddle-wheel-like device which receives sheets horizontally, turns them over and discharges them.

NAPL

(Continued from Page 45)

production standards for NAPL, by Fred W. Hoch, management consultant; the address of welcome by president Rex G. Howard; a survey of



5331 S. CICERO

CHICAGO 32, ILL

REliance 5-5100

CRISP-VELVET- GRAIN



35 years experience graining plates that please both platemaker and pressman

All sizes ZINC and ALUMINUM PLATES

Ungrained - Grained - Regrained

WILLY'S
Plate Graining Corp.

34-12 10th Street Long Island City 6, N. Y. Phone RA 8-1526



Member, Lithographic Plate Grainers Association, Inc.

NAPL

(Continued from Page 108)

research and its value to the industry, by J. Louis Landenberger, president of the Lithographic Technical Foundation; and a talk by John L. Hallstrom, vice president and sales manager of Edward Stern & Co., on selection, training and management of a sales force.

Three members of the quality control panel also were announced. They are Edward B. Hayden, director of quality control and assistant secretary, Esterbrook Pen Co.; Philip Tobias, director of research, Edward Stern & Co.; and Douglas F. Reilly, assistant treasurer, Buck Printing Co. One other addition to the program is a visit to the Harris-Seybold Co. plant, which is set for Thursday afternoon.*

DAY AT THE RACES

(Continued from Page 33)

Cann is a great racing enthusiast, and thinks the Delaware track is one of the finest in the East. And he's enthusiastic, too, about the new plant the company soon will build south of Wilmington to replace the three scattered units now in use.

Printing the race program falls right in line with the company's policy of offering a complete rush service for a general line of commercial work.

Even so, the company welcomed the breather when the track closed its meet July 4. But the respite won't be long. Next month they'll go at it again, producing a similar program for the nearby Brandywine Raceway. Compared to the Delaware Park job, though, that one will be a snap: the races are in the evening.

PHOTO CLINIC

(Continued from Page 67)

contact prints it will become necessary to protect the paper emulsion from either the jelly or the glycerin by means of a thin sheet of cellophane or plastic between the two emulsion surfaces. Coating the negatives with a film of clear lacquer has also proven useful and has the added advantage in that it protects the emulsion from further damage.

Q: Are contact screens superior to engraved screens? B.C.S., San Diego, Calif.

A: A simple yes or no answer cannot be given this question. The conditions of use, the experience and ability of the cameraman, the nature of the copy and the type of negatives required are all factors which influence the suitability of one over the other. It is true that a novice can more quickly master the contact screen and obtain consistently better results than with engraved screens. However, when both types of screens are used under the best possible conditions by equally competent cameramen, it is often difficult to discern any substantial difference in results. In the case of engraved screens, unsatisfactory and inconsistent results can often be attributed to improper techniques and defective equipment, especially lenses, (See Photo Clinic, November and December 1954, and



REGISTER TROUBLES?

A common source of register trouble in color work is the lack of equilibrium between the humidity of the paper and that of the press room air. You can quickly, easily and accurately check this important factor with the Cambridge Printers Moisture Indicator. Printers and lithographers everywhere are using this instrument to indicate when humidity

conditions are right . . . saves time, and money and enables better color printing and lithography.

Send for Information

Cambridge Instrument Co., Inc. 3789 Grand Central Terminal Bidg., N. Y. 17, N. Y.

CAMBRIDGE PRINTERS MOISTURE INDICATOR

PIONEER MANUFACTURERS OF PRECISION INSTRUMENTS





REMOVES RESIDUAL GLAZE OR EMBOSS-ING CAUSED BY COATED OR NEWSPRINT TYPE PAPER STOCK—REVIVES WORN RUBBER BLANKETS AND ROLLERS

Amazing new solvent for rejuvenating your

NON-FLAMMABLE

old rollers and blankets. Insures longer life
. . helps to provide sharp reproduction.
Due to fast evaporation there is no harmful effect on plates from blankets. Economical and simple to use. Send for free sample without obligation.

NON-TOXIC

DEALERS: Write for interesting proposition.



METAL DECORATING INKS

Developed expressly to meet the toughest requirements of the metal decorating business. • Will not bleed or spread—excellent wet compatibility with finishing varnish. • Resists high baking temperatures—and heat from sterilization processes. • Withstands drawing and forming—outstanding performance even when difficult conditions are imposed. • Excellent whites—with exceptional color retention. • Write for samples and details.

A Division of Sun Chemical Corporation

General Pri

General Printing Ink Company
10th Street and 44th Avenue
Long Island City 1, New York
Offices and Service Plants in Principal Cities

DIVISIONS OF SUN CHEMICAL CORPORATION

DIVISIONS OF SUPE CHEMICAL CORFORATION

RIGHT 4 HISSON = WILLEY (paints, maintenance and construction materials, industrial coatings) - WARWICK

(textile and industrial chemicals) - WARWICK WAX (refiners of specialty waxes) - RUTHERFORD (lithographic equipment) - SUN SUPPLY (fithographic supplies) - ECHERAL PRINTING INK (Sigmand Ullman - Fuchs & Lang - Eagle
American - Kelly - Chemical Color & Supplies) has high Morrial (nows inits) - ELECTRO-CENTRIAL PRODUCTS

(coatings and plastics) - PIGMENTS DIVISION (pigments for paints, plastics, printing inks of all kinds)

DRY OFFSET PLATES

on MAGNESIUM

Line & Halftone Combination Black & White and Color Also Four-Color Process All sizes up to 48"x72" on .025" or .016" Magnesium

We also service letterpress printers with Magnesium printing plates. 16 gauge or 11 point, blocked or unblocked.

24-Hour Service • Prices on Request

Address all inquiries to:

COLOR PRINTING DIVISION of the TRENTON TIMES

600 Ingham Ave. T

Trenton 8, N. J.

$\mathbf{B}_{\mathbf{M}}$

HALFTONE SCREENS

SLACK AND WHITE AND COLOR

in use around the world

Many standard sizes and lines available for immediate delivery.

Make your 24" camera do the job of a 32" with a set of BM angle screens.

A set of 20" x 24" four angle screens will make as large a job in a 24" camera as will a 23" circular screen in a 32" camera.

ASL YOU!

GRAPHIC ARTS SUPPLIER



 $\mathbf{B}_{\mathbf{M}}$

HALFTONE TINTS

Your Customers want STANDARDIZED BM TINTS

Keep complete selection on hand at all times. Don't waste valuable camera time making tints. 60 to 133 line in 6 tone values.

Buckbee Mears Co.

OVER 3,000 BAUMFOLDER USERS of the 17 x 22 "JUNIOR JET" say . . . "IT'S A GOLD-MINE!"

It will easily be the same for you as for the over 3,000 purchasers in recent years who say . . . "It pays for itself many times over every year".

It's the world's closest-precisioned . . . finest . . . fastest Folder. Makes folding your most Profitable operation . . . 5 folds in 1 operation, 60 styles of folds . . . makes perforating practically All profit. It's an automatic lightning-speed Perforator; automatic Scorer; automatic Cutter; automatic Crimper . . . All-In-One. Tomorrow's Automatic . . . at a pre-war price. Equipped with Friction Feed — \$100. initial and \$48. per month for 30 months . . . with Suction Pile Feed, extra motor and pump — only \$100. initial — 30 months Pay-For-Itself terms.

A "GOLD-MINE" FOR A LIFE-TIME. Do allow us to mail specifications. THANKS.

RUSSELL ERNEST BAUM, INC.

615 Chestnut St., Phila, (6) Pa.

LOmbard 3-8164

May 1955, where problems concerning halftone work with engraved screens were discussed).★

"WORK SIMPLIFICATION"

(Continued from Page 42)

disgruntled workman can yet turn out a good day's work. The sourpuss executive can yet do a pretty good administrative job. But if we can eliminate the evil disposition and the grouch and the sourpuss, and develop instead a friendly atmosphere, then we have captured the most priceless ingredient that can be employed in the simplification of work.

IPEX

(Continued from Page 47)

of the web with a movement corresponding to the surface speed of the printing cylinder: Perfect printing is obtained in spite of the fact that the web in the main is stationary.

Mobile Map Printer

Mention must also be made of the British Army Mobile Map Printing Unit which has been developed by the Ministry of Supply and the Crabtree company. The unit—which was operated at the exhibition— consists of a printing vehicle and a darkroom vehicle designed for the reproduction of two-color field maps of a type and size acceptable to North Atlantic Treaty Organization standards.

The German Klimsch autofocussing cameras attracted attention at IPEX, being equipped with a number of new features. The Autovertikal type can be supplied with three lenses or three mirror systems. Masking work is facilitated by a new oscillating device. The dark room type Super-Autohorika horizontal camera can be equipped with a projecting device for enlargements which also allows the copyholder to oscillate.

The new Autohorika model is a process camera for direct reproductions, based on the Klimsch system of atomatic focussing spindles. A wide range of photo-reproduction cameras of all types was featured by the English Littlejohn Co. which introduced a new all-metal darkroom auto-focus vertical camera and a 20x20 horizontal darkroom camera for small offset work. Pictorial Machinery Ltd. exhibited a camera with a mechanically-operated giant enlarger.

Step and Repeat

Among step and repeat machines, the George Mann company introduced its "Multineg" machine, designed in two models. It needs no separate auxiliary apparatus and all spares, register frames and other items are housed in the machine. Film or glass plates can be used without risk of breakage. The pressure table is a cast plate covered with rubber sheeting. A set of four holders is standard equipment. The Swedish Misomex company was represented at IPEX with a step and repeat machine sold under the name of "Consolidated-Multineg" in America, but marketed as the "Multinex" in England. Copying work on this machine is fully automatic.*

RUSTIE OF RUST CRAFT

(Continued from Page 35)

symbols of many types of greeting cards blockprinted on it. Her hat, and other accessories are all replicas of an artist's palette, the greeting card firm's trademark. The custommade over-the-shoulder bag is in the form of the Rust Craft palette; accessories of earrings, pin and belt buckle are silver and gold artists' palettes with the initials "R.C." in high relief on them. Her petite hat also carries out the Rust Craft motif.

The company's 135-man sales staff enjoyed a sneak preview of Rustie during the annual sales conference at Asheville, N. C. late in May.

Rustie, in private life Mrs. Barbara Cloud (no pun on the sur-name intended), is the wife of Boston photographer John Stuart Cloud.

A big venture for Rust Craft, the company feels that lithographed greeting cards will get a nice boost from the planned promotional program for Rustie of Rust Craft.*

GET SPARKLING REPRODUCTIONS WITH WESTERN'S 0000 EXTRA FINE GRAIN

FACTS

Sharp images—improved clarity. Minimum distortion of halftone dots. Normal water carrying qualities. Balanced performance.

SKILLED CRAFTSMEN 28 YEARS' EXPERIENCE

DIRECT TRUCK DELIVERY FOR PROMPT DEPENDABLE SERVICE AMERICA'S MOST MODERN PLATE GRAINING PLANT



Located at the Crossroads of America



COMPLETE STOCK
NEW ZINC AND
ALUMINUM PLATES

'BARTELS'

FRESH GUM

SOLUTION 14°

Stays fresh! Ideal for developing pre-sensitized Photo-Offset Plates

GORDON BARTELS CO.

BARTELS'

DEEP-ETCH COATING

Flows Without Streaks
Best for fine or grainless plates

GORDON BARTELS CO.

'BARTELS'

ETCH-GUM

Combines two operations Safe! No chromates Ask your dealer

GORDON BARTELS CO.

SMOOTHER PRINTING PERFORMANCE

with the neu

EEZY-LITH

NUMBER 10

- ELIMINATE PICKING and sticking on coated and card stock
- PREVENT OFFSET
- OVERCOME Tackiness in inks or blankets
- BRING ABOUT faster drying
- FREE FLOWING consistency in the ink for more even coverage on solids
 MEMBER



Not to be confused with wax compounds, varnishes or driers. "EEZY-LITH #10" will not change the shade of the ink or harm the rollers, plate or blanket.

ROLL-O-GRAPHIC CORP.
Dept. M 133 PRINCE ST., NEW YORK, N. Y.

Production speeded...quality control improved





TYPE 316
STAINLESS STEEL
EQUIPMENT
FOR GRAPHIC ARTS
PROCESSING

HEAVY DUTY SINKS . TRAYS . PLATE TROUGHS



CORROSION-RESISTANT - STRONG - ECONOMICAL

LEEDAL — the complete line of top quality stainless steel processing equipment, all scientifically designed for dependable, faster, better work and ease of handling plates and film — thus assuring dividends in production and efficiency in your plant.





LEEDAL features • heli-arc welded joints
• type 316 stainless steel • high lustre satin finish
(CUSTOM BUILT EQUIPMENT MADE TO ORDER)

SEE YOUR SUPPLY HOUSE REPRESENTATIVE OR Write today for your free copy of Bulletin L24.

LEEDAL STAINLESS STEEL PRODUCTS, INC.

2929 South Halsted Street . Chicago 8, Illinois

33 YEARS OF OFFSET PLATE MAKING AND PLATE GRAINING

CHICAGO LITH PLATE GRAINING CO.

OMPLETE OFFSET PLATE SERVICE-

TELEPHONE STATE 2-8590

214-216 NORTH CLINTON STREET, CHICAGO (6)

WET-STRENGTH PAPERS

(Continued from Page 50)

treatments, such as controlled humidification of pre-printed papers, but rather represents an additional means for getting good results under economical conditions. The study of how the qualities and characteristics of printing papers can be improved is being continued in an effort to help make better papers available for better press results.*

SHORT RUN 3-COLOR SYSTEM

(Continued from Page 64)

course, quite important. A 3-inch Projection Ektar Lens images the masked Kodachrome transparency on the film, which in turn is mounted on a sliding carriage. Surrounding the lens is a ring-shaped light source used for the flash exposure.

The carriage consists of a metal frame inside of which is mounted a piece of specially-selected clear plate glass. Laminated to the side of this glass plate, away from the lens, are three gray contact screens. These are arranged side by side and are mounted with their axes 45, 75, and 105 degrees from the horizontal. The frame is automatically indexed so that the projected image falls on each one of these in turn. Surrounding the plate glass is a channel connected to a pump whereby vacuum contact between the surface of the contact screen and the emulsion of the Kodalith Pan Film is achieved. Red, green, and blue filter exposures are made on a single sheet of Kodalith Pan Film carefully positioned on the sliding holder.

At each exposure position, a round and a slotted hole are punched into the film. The color separation exposures are of the order of 4 seconds, 5 seconds, and 18 seconds respectively.

Part of the skill of negative making entails deciding which shadow details should be retained and allowing denser shadows to be printed as solids. Some measure of contrast control is achieved then by using a shadow dot flash.

Development of the negatives is

by tray with full agitation. The temperature is held at 68°F. Kodak Restrainer SDR-1 is used in combination with the A and B parts of the Kodalith Developer. The two solutions are run from the storage bottles through the measuring pipettes into containers. These have stirrers and cooling coils through which the same temperature-controlled water runs as through the jacket around the developing tray. While one set of separations is being processed, the solutions are being brought to temperature for the next batch. After fixing, washing, and drying, the negatives are cut apart and are ready for exposing on the printing plate material.

The blue-filter negatives from four different Kodachrome transparencies are mounted in a special pin register holder. A presensitized plate is punched with the Kodak Matrix Film Punch and is then precisely positioned in this holder by register pins. There are vacuum channels surrounding each separation negative to hold each in position and another vacuum channel around the entire frame in order to obtain vacuum contact between the negatives and the printing plate. The Grafarc lamp is normally off until the frame and printing plate have been brought together and vacuum contact established. At this time, it is swung up into position and exposure is made to the lamp and is controlled by shutter and electric timer. Tint strip and step tablet are printed on each plate for plate and press control purposes.

Multilith of Value

The Model 1250 Multilith Duplicator was originally designed as an office machine, but it has been of value in experimental printing. The register pins that fit the holes punched in the printing plate are now installed on the lip of the plate cylinder. These automatically provide register without hand adjustment. Ink distribution can be improved by the addition of a set of three rollers attached to the regular oscillating ink roller. In order to

(Continued on Page 117)

Stickin' Around

An "Oscar" for KLEEN-STIK

If they gave awards for outstanding P.O.P. materials, guess who'd win? KLEEN-STIK, of course! This versatile pressure-sensitive adhesive always give a top performance—no matter how difficult the role. Look at these recent "hits" starring KLEEN-STIK:



A Furniture "First"

DOUGLAS FURNITURE CORP., Chicago, presents this first really effective point-of-sale piece for chair backs. Of sturdy cardboard, ingeniously cut and folded, it's held firmly by two strips of easy-to-apply KLEEN-STIK. Thousands have already been used by Douglas salesmen. Ad Director JACK THOMPSON points out the actual sample of "LAMEX" plastic material attached, so customers can feel the quality. Smart modern design and attractive pink-and-black printing by BERGER-AMOUR, Chicago, handled by BERNY SLEPAK.



"Take-One" Talker

Suppose you needed a P.O.P. piece to fit several types of display racks? Solution—use K.LEEN-STIK!
That's what THE FRITO COM-PANY, Dallas, did—with the help of their agency, TRACEY-LOCKE CO., INC. Result—this eye-catching "Rack Talker", slotted to hold "Take-One" coupons. Two strips of moistureless K.LEEN-STIK make it easy to peel-and-press onto any type of display. Account Exe NEWSOME GAY, Artist BILL NEALE and Production Man FRANK SMITH did the creative work, with "bang-up" printing by PADGETT PRTG. & LITHO CO., Dallas.

(Cast KLEEN-STIK in your customers' sales "show" for profitable extra jobs! Window streamers, shelf strips, diecuts, labels, and other P.O.P items made with this versatile performer get "rave notices." You can get the script for plenty of ideas by writing for your big free "Idea Kit" today!

KLEEN-STIK PRODUCTS, INC.

225 North Michigan Avenue • Chicago 1, III.
Pioneers in Pressure Sensitives to the Trade

The Litho Industry Prefers



LITHOGRAPHERS PLATES

World Famous for Superior Quality

A product of 82 years of experience

ILLINOIS ZINC COMPANY

Chicago 32 '2959 West 47th Street LAfayette 3-1600 New York 20 630 Fifth Avenu Circle 7-0874

FOR SALE

PHOTO-COMPOSER

(57" x 72")

Completely rebuilt and guaranteed

Equipped with pre-register device, 4 chases, arc lamp and hoods, priced less than 50% of new price. Box No. 719

IMMEDIATE DELIVERY

DRY PLATES FILM PHOTO CHEMICALS

Lenses, Contact Screens and accessories for the camera and darkroom

K. SCHLANGER

333 West Van Buren St., Chicago 7, Ill. WEbster 7540

Efficiency Proved

A Film Scribing Tool

scientifically designed for

Ruling Negatives



Litho Ruled Forms - QUICKER - EASIER - BETTER

★ Perfect uniformity of rules—no film spoilage.
 ★ 6 cutting heads in set: 4 for single rules from hairline to 1-point rules; 2 cutting heads for double rules.
 A postcard will bring descriptive literature



Duluth, Mini



A-1 USED PRESS EQUIPMENT

Harris 21 x 28 Model LTC A. T. F. Big Chief 22 x 29 Harris 42 x 58 T. C. Model LTL Harris 42 x 58 T.C. Model LSK

Box M Modern Lithography

FOR LITHOGRAPHY LITHOGRAPHY

Lithograin assures you careful and competent handling of all your graining and regraining requirements. It also features "Cronak" processing of zinc plates which gives cleaner and longer press runs. Zinc and aluminum offset plates supplied in all sizes.

TOLEDO LITHOGRAIN AND PLATE COMPANY
PHONE GARFIELD 3578 - 714 WASHINGTON - TOLEDO 2, ONIO



All classified advertisements are charged for at the rate of ten cents per word, \$2.00 minimum, except those of individuals seeking employment, where the rate is five cents per word, \$1.00 minimum. One column ads in a ruled box, \$7.50 per column inch. Address replies to Classified Advertisements with Box Number, care of Modern Lithography, Box 31. Caldwell, N. J.

Help Wanted

STRIPPER: Two and three-color work, for plant in Albany, N. Y. Permanent job with pleasant working conditions, medium sized shop. Address Box 749, c/o Modern Lithography.

LITHOGRAPHIC STRIPPER, flat color, opportunity to advance. Salary open. Address Box 750, c/o Modern Lithography.

WANTED OFFSET PRESSMEN: 2color and 4-color needed. Permanent positions for those who apply immediately. For 2-color pressmen there are possibilities of gaining experience on 4-color in the future. L. F. Dow Co., St. Paul. Minn.

YOUNG MAN. Experienced write-up clerk. Chance for advancement. Apply by letter with full information. Press, Inc., 233 Spring St., NYC.

QUALIFIED-Two-color pressman and top notch stripper needed for plant in Miami, Florida. Permanent job. Replies confidential. Address Box 753, c/o Modern Lithography.

DOT ETCHERS — STRIPPERS
Excellent opportunity for qualified color process
sive plant located in Milwalkee. Wisconsin is the
largest trade plant in the world, and has an international reputation for highest quality work. Please state experience in first letter.

Mueller Color Plate Company
2320 North 11th Street Milwaukee, Wisconsin
Phone: Locust 2-1611

HELP WANTED - POSITIONS OPEN

HELP WANTED — POSITIONS OPEN
Superintendent — Lithe Pasters
HIOWEST \$10,000
Plant Superintendent — Offset
Letterpress knowledge of Web
offset, Hoe, Goss presses and
bindery MIDWEST \$10,000-\$12,000
Plant Manager — Offset Letterpress
Production & STETE Letterpress
Production & CHICAGO \$8,000-\$10,000
Superintendent — Letterpress
Miebles 2 col. Cyl., Cottrell Rotaries
Miebles 2 col. Cyl., Cottrell Rotaries
Miebles 2 col. Cyl., Cottrell Rotaries
Foreman — Goss & Hoe Prosses
Foreman — Goss & Hoe Prosses
ChicAGO \$8,500-\$10,000
Chief Estimator — Litho
Salesman—Letterpress — CHICAGO OPEN

GRAPHIC ARTS EMPLOYMENT SERVICE Helen M. Winters, Mgr. Dept. M-8, 307 E. 4th Street Cincinnati 2, Ohio List Your Confidential Application With Us A-1 PRESSMAN: For operation of Harris two-color presses. Must be capable handling finest four-color process work. Good opportunity in first-class city in Southwest. Fine working conditions. Permanent job. Give complete details of your experience, previous connections, earning, and references. Reply will be held in strict confidence. Address Box 751, c/o Modern Lithography.

Situations Wanted:

WANTED: A progressive Lithographer who is looking for a technical specialist to assume responsibility for plant improvement in methods, standards and control, with emphasis on color. Box 748, Modern Lithography.

MAINTENANCE MAN wants position in progressive Litho House. Experienced on large multi-color Harris presses and related equipment. Can supply best of references. Address Box 746, c/o Modern Lithography.

HERBERT P. PASCHEL

Graphic Arts Consultant

Methods Anglysis Trouble-Shooting

In-plant Training Color Correction Systems

118 East 28th St .- New York 16, N. Y. MUrray Hill 6-5566

High Gloss Plastic Coating

Lacquering-Varnishing-Gumming Bost Quality & Service

PAPER CONVERTING & FINISHING CO. 118 N. Ada St., Chicago 7, Ill. Phone Haymarket 1-7904

TECHNICAL SPECIALIST: With outstanding record of achievement as technical advisor. A unique background of practical experience in lithographic production, trouble-shooting and tradetraining. Interested in responsible position with progressive plant involving technical supervision and in-plant training. Would also consider commensurate position with supplier or equipment manufacturer. Address Box 747, c/o Modern Lithography.

ALL AROUND LITHOGRAPHER, cameraman, stripper, plate-maker, pressman desires supervisory position with litho firm. College man. B.S. degree in Lithography. Do technical writing. Have knowledge of litho chemistry. Wish to relocate in Midwest or Calif. Christian. Address Box 744, c/o Modern Lithography.

EXPERIENCED platemaker, stripper, plate dep't. foreman and plant Supt. 43 years old. Desires position as sales representative for litho equipment or supply house. Able to meet and handle all types of people. Good appearance and technical background. A-1 references. Address Box 745, c/o Modern Lithography.

For Sale:

FOR SALE: 30 x 36 Directoplate Offset Press; 20 x 28 German Power offset Proving Press with A.C. motor; 62" Monotype Vertical plate whirler; 90" Lorenz Photogelatine whirler; 8 x 22 3-roller Ink Mill; Line-up tables; Hall presses and parts; New Offset proving presses. Address Box 754, c/o Modern Lithography.



the RELIABLE Supplier to the Lithographer

for SERVICE call BRyant 9:8480 EASTERN GRAPHIC ARTS SUPPLY CO. 254 W. 31st STREET N. Y. C.

Lithographic Pressman

Journeyman with minimum 4 years' commercial lithographic experience in the operation and maintenance of Web Offset equipment, Hoe Webendorfer or New Era equipment is acceptable. To personally operate and maintain a Hoe Jobber Press, 8½ inch Cut Off, 10 to 14 inch Web and supervise the operation and maintenance by non-American personnel of Davidson Multilith and Rotoprint equipment. For company's printing operation located in Saudi Arabia.

Salary commensurate with background and experience. Write giving full particulars regarding personal history and work experience. Please include your telephone number. Recruiting Supervisor, Box 55

ARABIAN AMERICAN OIL COMPANY

505 PARK AVENUE

NEW YORK 22, NEW YORK

NEW PRINCETON — ENLARGING COPYING & REDUCING CAMERA

11 x 14" to 21/4 x 31/4" and Smaller



Modern - Newly Designed, Substantial Construction, Operates in Both Horizontal and Vertical Positions, Metal Cabinet Stand, Highest Quality in Every Detail, Well Balanced, Easy Operation, Easel or Very Detail, Well Balanced, Easy Operation, Easel or Jetz, Arailable with Standard Size Backs, and Lantern Silde, Used by Govi, Institutions, edc. Fully Guaranteed, Write Dept. MOLI.

PROCESS LENSES

World's Largest Selection for All Graphic Arts Purposes . . . COOKE — Carl Meyer — Wollensak — etc. 15 day trial — Fully Guaranteed. Complete Lens Lab Facilities . . Coating, Special Mount, Testing, etc. Write for Special Process List. Dept. MOLI.

BURKE & JAMES, INC, 321 So. Wabash, Chicago 4, U.S.A

DUKNE & JAMES, INC. 321 So. Waddish, Chicago 4, U.S.A

m.D.WILSON

PRINTING INK COMPANY LTD.

Fine Printing Inks

LETTERPRESS

Est.



LITHOGRAPHY

1865

5-38 46TH AVE., LONG ISLAND CITY, N. Y. TEL.: STILLWELL 4-8432

You need the best!

The best plates produce the best printing. Expert offset plate graining saves you money in the long run by permitting quality work and smooth press performance. The skill and experience of ALJEN SERVICE assures the best. Careful and competent handling of your plate problems. Zinc or aluminum plates, any size.

ALJEN ASSOCIATES

1215 Primrose Street

Cincinnati 23, Ohio

OFFSET PLATES

Surface, Deep-Etch and Copper Plates

STEP & REPEAT OFFSET PLATES

MULTIPLE LINE & HALFTONE NEGATIVES

FOR THE TRADE

We Operate No Presses

Graphic Arts Service Company

390 Orange St., S.W.

ATLANTA, GA.

PHONE: CYpress 5934

Call UNIFORM

for superior
PLATE GRAINING

Our service designed to meet

your most exacting requirements.

ZINC PLATES — ALUMINUM PLATES

Ungrained — Grained — Regraining

UNIFORM GRAINING CORP.

648 N. Western Ave. Chicago 12, III.

For good used equipment check



- ATF Little Giant, 12 x 18", as is
- ATF Little Chief, 14 x 22", as is
- Webendorfer MAC, 17x 22", as is
- Miehle-Roland 29, 23 x 29", as is
- Harris 245 (LST), 35 x 45" two-color, as is
- Harris LSK, 42 x 58" two-color, as is

Box No. 1, Modern Lithography

GRUMBACHER PEED PAQUE FOR NEGATIVES • No "feather-edges" • No pinholes • No streaks Never tacky...even in humid weather. ONE STROKE COVERING... FAST DRYING... OPAQUE ... FOR FINE LINE WORK Opaques night to the Edge Write for Prices & Free Sample M. GRUMBACHER 177 W. 33rd St., New York 1, N. Y.

"OK"ie Developing Ink "OK"ie Negative Opaque

Cameras, Lenses, Screens, Arc Lamps, Printing Frames, Whirlers and Sundries

Write today for prices and full information

E. T. Sullebarger Co.

900 S. WABASH AVE. CHICAGO (5)

110 FULTON ST. NEW YORK (7) FOR SALE: Two 22 x 29 Webendorfer presses, excellent condition, producing quality color work, hairline register, many extras. Address Box 755, c/o Modern Lithography.

FOR SALE: Lanston Monotype step and repeat machine—flatbed size 53½ x 76; Overhead lights — automatic timer; Chases—2 sizes—19 x 24—11 x 14½; Curtains and centering table. Price \$1500. Call OR 3-0900.

BUY—Surplus printing presses, equipment, supplies, hundreds other items direct from U. S. Government. Surplus Bulletin \$1.00. Box 169CE, East Hartford 8, Conn.

FOR SALE: 44 x 64 Consolidated camera, 58", 133 line circular screen. 47½ lens color corrected. Complete with vacuum back, lamps and overhead track. All electrical equipment is A.C. current. Address Box 756, c/o Modern Lithography.

FOR SALE—One 40" x 52" used Model C-A Consolidated automatic vacuum printing frame. In excellent condition, complete with tubular reserve tank, AC motor and pump. Can be seen at Chemico's New York Showroom, 235 4th Ave. Price \$600.00.

FOR SALE: Christensen high speed bronzer excellent condition. Harris Offset press, LSB 17½" x 22½". Printing & Litho Equipment Co., 150 Nassau St., New York 38, N. Y.

EQUIPMENT FOR SALE: Milwaukee Bronzers for all press sizes. For complete details write to C. B. Henschel Mfg. Co., 229 West Mineral St., Milwaukee 4, Wis.

WE NEED SPACE!

SEND FOR BARGAIN PRICE LIST OF NEW AND USED EQUIPMENT: ARC LAMPS, CAMERAS, SCREENS, ELECTRIC ETCHING MACHINES, PRINTING FRAMES, SAWS, ETC. GENERAL PLATE MAKERS SUPPLY CO. 5441 N. Kedzie • Chicago 25, Illinois

Paper Lacquers & Varnishes

Formulated to suit your work, facilities and end use requirements and at lowest possible costs. Formulators and distributors of **HygroSec**, a desiccating solvent blend.

SURCHEM PRODUCTS COMPANY 132 W. 32hd St., N. Y. 1. PEnn 6-5330



FOR SALE: Gelb 35, 50 and 75 amp. Overhead Printing Lamps. Levy Screens; 10x12x150 line, 8x10 and 10x12x175 line. 33" Zeiss Apo Tessar Lens. Substantial discounts. Singer Engineering Co., for complete plate making equipment, 248 Mulberry St., New York, N. Y.

Miscellaneous:

COLOR separations for process offset: Halftone positives, negatives made electrically controlled color corrected including dot etching, as low as \$99.00 a set, up to $3\frac{1}{2} \times 5\frac{1}{2}$ size, made in all sizes, proofs available. Color copper cuts for letterpress: Color corrected copper plates including progressive proofs in all sizes up to postcard size for only \$99.00—quick service. Send for free samples and price list "4." Moss Photo Service, Inc., 350 West 50th Street, New York 19, N. Y. Serving accounts "to satisfy" from coast to coast since 1935.

Hacketh double arc printing lamp 35 amp
Gelb Multiper 35 amp arc light
24" Robertson Gallery camera
24" Directoplate darkroom camera w/scale
focusing
33" Zeiss color corrected lens, vacuum back
24x30 Wesel vacuum frame
30x36 Wesel vacuum frame
30x36 Wesel whirler
3-14x17 Levy rectangular screens 150 line—
Yellow 90°, Red 75°, Blue 105°
11x14 Pako contact printer
36 cm (approx. 14") Apo Tessar Zeiss lens
31½" dia. Goerz-Prism lens
31½" dia. Goerz-Prism lens
41½" Bausch Lomb lens
41½" Bausch Lomb lens
Huebner straight line image reverser
Oscar J. Ianello
APEX PRINTING MACHINERY CO., INC.
210 Elizabeth St., N. Y. C. WOrth 6-0070
Dept. ML

ROTARY (Web) PRESSES New or used

All sizes and all processes. Domestic and Foreign makes. Special application presses designed and built at a fair price and shortest time.

CONSULTANT SERVICE

Publications and Business Forms J. P. Farkas, Box 4184, Pittsburgh 2, Pa. Phone POplar 6-9194

FREE SAMPLE—Yours to use without cost. Create sparkling layouts for all printed matter with scissors and paste-pot. The Brand New Clipper—new in size, format, features, content, color techniques, ideas. Get sensational introductory offer. No obligation — no salesmen. Address Multi-Ad Services, Inc., Box 806B, Peoria, Illinois.

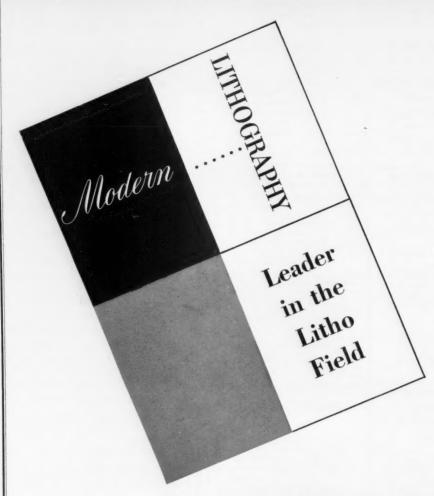
SHORT RUN 3-COLOR SYSTEM

(Continued from Page 113)

achieve good blacks, it is necessary to apply considerably more ink than the amounts commonly used. It is therefore essential to use a "No Offset" spray at the delivery end of the press.

During the plate making operation, a tint strip and a continuous tone step tablet are exposed on the plate. The latter is used as a check on the reproducibility of plate exposure and processing. The tint strip is used as a control on the density of ink printed for each color. The 70 percent tint is used in preference to a solid because it has been found that it is more sensitive to the ink water balance of the press and slight changes are more easily measured using a reflection densitometer. Although the Research Laboratories system is based upon the use of 35mm Kodachrome transparencies, the same methods are, of course, applicable to all sizes and types of transparencies. In the Graphic Reproduction Sales Studio in Rochester, we have been using a piece of equipment that departs from the Research Laboratories projector in that it will produce variable size separation negatives and prints from 35mm Kodachrome transparencies. Eastman Kodak does not supply this equipment but other equipment has been made available by other manufacturers and they have incorporated still greater flexibility in their products. The Research Laboratories system is standardized on the use of a single size original transparency reproduced to a fixed size print to achieve the lowest possible cost. Such standardization probably does not always fit in with the requirements of the customer and some flexibility in equipment in order to accommodate different size transparencies and to produce different sizes of prints seems desirable.

Although the Kodak Research Laboratories have used a 266-line neutral contact screen for their experiments we have made available the 150-line Kodak Gray Screen for doing short-run 3-color work commercially. This screen is now on the market and is used with any of the equipment to make direct halftone separation negatives. While office duplicating machines have been used by the Kodak Research Laboratories and are specially adapted to short runs and experimental printing, the register techniques used may also be applicable to larger press operations.*



- first in circulation
- first in advertising
- first in readership

If your primary interest is the sale of ink, paper, machinery or other supplies to the lithographic market, *Modern Lithography* is your logical No. 1 advertising medium. Its A.B.C. audited circulation can carry your advertising message to top executives of the industry at minimum cost.

P.O. BOX 31

CALDWELL, N. J.

Sndexto ADVERTISERS

AUGUST, 1955

Aljen Associates		Constitution of the contract o	O cary	manage conjugation of the control of	
Alum-O-Lith, Inc	June	Glidden Co., The	July	Nuclear Products Co	Apr.
American Graded Sand Co	94	Godfrey Roller Co	June		
American Type Founders, Inc	June	Goers American Optical Co., C. P			
American Zinc Products Co		Graphic Arts Corp. of Ohio	96		July
	June	Graphic Arts Employment Service		Oxford Paper Co	7-88
Amsterdam Continental Types & Graphic Equipment, Inc	Inne			Oxy-Dry Sprayer Corp	July
Anchor Chemical Co		Graphic Arts Machinery			
		Graphic Arts Service Co	116		
Ansco	25	Graphic Publishing Co	21	Paper Manufacturers Co	
Appelton Coated Paper Co	10	Grumbacher, M., Inc	116	Paul, J. C., Co	July
Aristo Grid Lamp Products, Inc	June	Gummed Products Co	17	Photo Litho Plate Co	June
Azoplate Corp	Apr.			Pitman, Harold M., Co	30
				Printing Machinery Co	July
		Hamilton & Son, W. C	July	Progressive Lithography Service, Inc	
Baker Reproduction Co	July	Hammermill Paper Co	65		May
Bartels, Gordon		Handschy Co., A. E	90	ryroxynn Froducts Co	may
Baum, Inc., Russell Ernest					
		Harris-Seybold Co 54-55, 4th		Rapid Roller Co	29
Beckett Paper Co		Hill Rubber Co., Inc		Recht Co., Inc., William	-
Bensing Bros. & Deeney		Hoe, R. & Co	6		
Sam'l Binghams Son Mfg. Co	July	Howard Paper Co	July	Reliance Electric & Engineering Co	
Bingham Brothers Co	June	Hunt Co., Philip A	80	Repro Graphic Machines, Inc	
Bridgeport Engravers Supply Co	104			Roberts & Porter, Inc	3
Brown, W. A. Mfg. Co				Roberts, Lewis, Co	June
Buckbee-Mears Co		Ideal Roller & Manufacturing Co	June	Rogers Co., The Harry H	-109
		Illinois Zine Co	114	Roll-O-Graphic Corp	
Burke & James, Inc	110	Interchemical Corp., Printing Ink Div	July	Rosback Co., F. P	
		International Press Cleaner & Mfg. Co			96
	300		24	Rutherford Machinery Co	90
Cambridge Instrument Co., Inc		International Paper Co			
Cantine Co., Martin 3rd	Cover	Intertype Corp	4	Saltzman, J. G., Inc	Inly
Central Compounding Co	July			Schlanger, K.	
Champion Paper Co	19-20	Jomae Products	Y.		
Champlain Co., Inc		Jomac Froducts	June	Schmidt, H. & Co	
Chemco Photoproducts Co				Schultz, H. J.	
		Kimberly-Clark Corp	26-27	Scranton Plastic Laminating Co	June
Chicago Litho Plate Graining Co		Kleen-stik Products, Inc		Scriber Specialties	114
Consolidated Int'l. Equip. & Supply Co				Senefelder Co	
Consolidated Water Power & Paper Co	23	Knox Soap Co		Siebold, J. H., & G. B., Inc	
Corn Products Refining Co	102	Korn Co., Henry P	July	Sinclair & Carroll Co., Inc	
Craftsman Line-Up Table Corp	June				
Crescent Ink & Color Co		I C F D	2.2	Sinclair & Valentine Co	14
Curtis Paper Co		Lawson Co., E. P	11	Strathmore Paper Co	9
Curtis raper Co	June	Leedal Stainless Steel Products, Inc		Stevenson Photo Color Separation Co., The	
		Levey Co., Fred'k H	July	Strong Electric Corp	13
Dayton Rubber Corp	60.61	Litho Chemical & Supply Co	18	St. Regis Paper Co	12
		Lithographic Plate Graining Co. of		Sullebarger Co., E. F	216
Dennnison Mfg. Co		America	94	Sun Chemical Corp	
Dexter Folder Co	58	Lithographic Plate Grainers Assn., Inc	June	Sun vareinteat Corpi	3
DiNoc Co	8				
duPont de Nemours & Co., E. I	July			Teitelbaum Sons, N	101
		Macbeth Are Lamp Co	100	Tickle Engineering Works, Inc., Arthur	
		Mack, Norman A., Associates	76		
Eastern Corp	66	Mallinekrodt Chemical Works	84	Toledo Lithograin & Plate Co	
Eastman Kodak Co		Master Products Co		Trenton Times	110
Electronic Mechanical Products Co					
		McAdams & Sons, John		Uniform Graining Corp	June
Eskay, Inc	July	McLaurin-Jones Co		U. S. Rubber Co	
		Mead Corp., The		CI DI Manare Continuenti Conti	-
		Michle Printing Press & Mfg. Co	28		
Falulah Paper Co		Miller Printing Machinery Co		Wagner Litho Machinery Div	56
Fitchburg Paper Co	15	Minnesota Mining & Manufacturng Co		Warren Co., S. D 7	73-74
Flint Ink Co., Howard	June	Mohawk Paper Mills, Inc		Warwick Typographers, Inc	99
Fox River Paper Corp				Western Litho Plate & Supply Co	111
Frangos, Wm. A., Inc		Moore Laboratories	July	Weston Co., Byron	68
Fraser Paper, Ltd	July	National Assn. of Photo-Lithographers	22	West Va. Pulp and Paper Co	
		National Carbon Co., Div. of Union		Willy's Plate Graining Corp	
Gaetjens, Berger & Wirth, Inc	May	Carbide & Carbon Co	103	Wilson Printing Ink Co., W. D	
Gegenheimer Co., Wm				Winsor & Newton, Inc	90
		National Steel & Copper Plate Co			
General Plate Makers Supply Co		Neenah Paper Co		Young Brothers Co	Inc
General Printing Ink Co		Nekoosa Edwards Paper Co		roung promers to	June
General Research & Supply Co	July	New York & Pennsylvania Co			
Gevaert Co. of America Inc	July	Northwest Paper Co	July	Zarwell & Becker	July

(The advertisers' Index has been carefully checked but no responsibility can be assumed for errors or omissions.)



The United States Printing and Lithograph Co. of Cincinnati, received the Merit Award for its 1954 annual report in the yearly competition staged by Financial World, in which 5,000 annual reports were entered. The award was for "distinguished achievement in annual reporting." It was the seventh such award received by the Cincinnati firm.

ml

The Chicago Lithographic Institute's 1955 graduating class, for the first time in the school's nine-year history, included a woman. This distinction went to Miss Helen Primak, an employee of the Veritone Co., who was given a certificate for completion of the prescribed two-year course in stripping-layout.

m

The versatility of lithographed printers was shown recently at a special loan exhibition of 80 color lithographs at the St. Louis City Art Musuem. The exhibition showed the medium's development from the early 1800's to as recently as 1953. The show was organized by the Cincinnati Art Museum and consisted mainly of gifts to that museum by Albert P, Strietmann, of Cincinnati.

m

The International Blue Printer, serving the blue print trade, came up with a section devoted to offset in a recent issue. The magazine gave a big boost to the process, but some of those blue printers may get the idea that offset is easy as rolling off a log. Lithographers who face regular crises in the shop, should be interested in this quote: "offset lithography . . . is a very simple process and can produce first class work with inexpensive equipment."

er's restaurant, from 12:30 to 5:30. Sounds like a good way to beat the heat.

m

Arrangements are being made for the annual breakfast sponsored by Miller Printing Machinery Co., Pittsburgh, at which prize winners will be announced for the 1955 Printing Industry of America, Inc. Printers' and Lithographers' Self Advertising Exhibition and Awards. Peggy Wood, star of stage, movies and television, and best known for her stellar role in TV's "Mama," will be the guest of honor and will award the Benjamin Franklin statuettes and other prizes. The breakfast will be held at 8:30 a.m. on Oct. 18, the fourth day of the P.I.A. convention, being held this year at Atlantic City. Toastmaster will be W. H. Walling, President of Printing Industry of America, Inc. and "Mama's" husband.

Normally, things are pretty quiet along the Litho Club front during the summer months. Not so in Baltimore, however. This month (Aug. 20, to be exact) the Baltimore club will hold its annual crab feast at Hassling-



Strike Two!

WHEN they've got you two strikes down, it's sort of hard to take your best cut. And when you're a salesman out calling on the trade, and they don't remember your company, and never heard of its product, they really have two strikes on you.

The moral of this story is that when you send your salesmen out to call on what should be live prospects, if you want them to take that big full swing and maybe knock out a sales home-run or two, see that they don't already have two strikes on them when they step up to the plate.

Pave their way in advance, with an advertising program that will make your company name and your products familiar to the prospective buyer. In the litho field, the magazine that can do the best job of presenting your sales story to the important people who make most of the purchasing decisions, is

MODERN LITHOGRAPHY

BOX 31

CALDWELL, N. J.

Member, Audit Bureau of Circulations



Point upward in your printing. Your customers—your business—will look up too. Whether you print by letterpress or offset—if you have photographs or paintings to reproduce—always use a coated stock, preferably a Cantine paper, made for the finest halftone reproductions. Printing "looks up" on Cantine papers.

LETTERPRESS

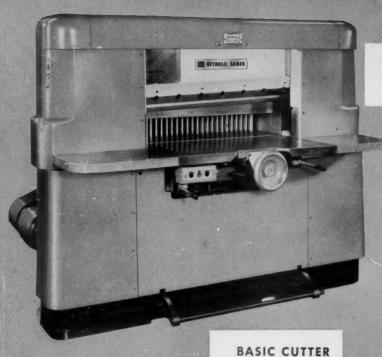
Hi-Arts
Ashokan
M-C Folding Book
M-C Folding Cover
Zena
Catskill
Velvetone
Softone
Esopus Tints
Esopus Postcard

OFFSET-LITHO

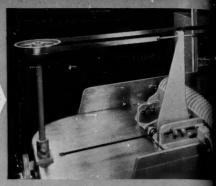
Hi-Arts Litho C. 15.
Zenagloss C. 25.
Zenagloss C. 25.
Zenogloss C. 25.
Lithogloss C. 15.
Catskill Litho C. 15.
Catskill Offset C. 25.
Esopus Postcard C. 25.
Esopus Tints C 25.

antine's coated papers

THE MARTIN CANTINE COMPANY
Specialists in Coated Papers Since 1888
SAUGERTIES, N. Y. and NEW YORK CITY
(In Los Angeles and San Francisco: Wylie & Davis)



ADD Power Back Gauge



ADD **Auto-Spacer**



Presenting Seybold Saber

41", 47", 54" power paper cutters that grow with your business

Manual Back Gauge

Here's a brand-new design concept: cutters that grow with the changing requirements of your business. Even major transitions can be made in your own plant. Interlocking construction of the completely new Seybold Saber makes this possible.

Suppose you start with a basic manual back-gauge cutter. As your business expands, and your cutting requirements change, you can convert it to a power back-gauge machine, and later to an Auto-Spacer. Or, you can change it directly from a basic cutter to an Auto-Spacer.

You can also add optional equipment. Some of it

Growth potential, however, is only one benef Advanced design features include a fully hydraul clamp, improved cutting stroke, 2-hand elect throw-in, electromagnetic clutch and brake, six-side spacer bar and many others.

Call your Harris-Seybold representative for comple details. Or, mail the coupon for a descriptive brochur



SEYBOLD CUTTER

Harris Presses . Seybold Cutters . Harris Litho-Chem Special Products . Cottrell Presses . Platemaking Equit Macey Collators

arris-Seybold	Company				
510 East 71st	St., Cleveland	5, Ohio			

bout the all-new Seybold Saber . . . at grows with my business

ddress



• For Operator Efficiency "Work Flow" Air-Film Table

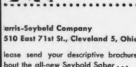
• For Fastest Possible Cutter Mass Production Extra Spacer Job Strips and Stops Special Minimum Successive Cut Stops Extra Reverse-Forward Assemblies

For Maximum Cutting Accuracy Clamp Pressure Indicator Detachable Clamp Sole Plates

• For Minimizing Non-chargeable Time **Cutting Stick Knockout** Plastic Cutting Stick

• For Book, Pamphlet Tri:nming—Split Back Gauge

ADD OPTIONAL EQUIPMENT WHEN YOU NEED IT



me of it

ne benef hydraul d electri , six-side

r comple brochur

TTERS
s Litho-Chemica
making Equipme

Time